Registered at the G.P.O., Sydney, for Transmission by Post as a Newspaper. Published Weekly.

THE

MEDICAL JOURNAL OF AUSTRALIA

(With which "The Australasian Medical Gazette," and "The Australian Medical Journal" are incorporated.)

The Journal of the Australian Branches of the British Medical Association.

VOL. II.—3RD YEAR—No. 15. SYDNEY: SATURDAY, OCTOBER 7, 1916. PRICE 6D.

THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. II.—3RD YEAR. SYDNEY: OCTOBER 7, 1916. No. 15.

DIATHERMY: ITS USE IN SURGERY.

By **W. Kent Hughes, M.B. (Lond.), etc.,**
Surgeon, Ear, Nose and Throat, Melbourne Hospital;
Honorary Surgeon, Melbourne Children's Hospital.

Heat penetration obtained by a high frequency current has made a place for itself in the treatment for malignant growths in most situations. All cases of inoperable cancer that can be reached externally are suitable for its exhibition. The sloughing, foul masses are destroyed and replaced by a soft cicatrix. The patient enjoys a comfortable existence extending to several years. If diathermy did no more, it would be of great value, but every year seems to increase its sphere of usefulness. My experience has been limited to inoperable carcinomata of the mouth, fauces, larynx, and œsophagus. I am more than satisfied with the results. The most striking effect is the disappearance of pain. Many patients, who have suffered agony for months, have no pain whatever after the effects of the anæsthetic have worked off. This is due to the abolition of the foul discharge and the destruction of the nerve endings in the vicinity of the growth. Anyone who has not had experience of its effect would scarcely believe that a large foul ulcer of the floor of the mouth or the tonsil would be replaced by a soft cicatrix, and remains sound for months, in my experience, for three years and longer in that of Mr. Harmer and Dr. Cumberbatch. Besides definitely inoperable cases all those that are on the border line of possible removal by surgery should be first treated by diathermy. When the septic condition has been cleared away and the glands considerably reduced the surgeon has a much better chance of successful and complete removal. Surgeons all over the world are using diathermy more and more extensively, and we certainly have not yet reached the limit of its usefulness. The list of conditions, malignant and non-malignant, in which it is used is ever lengthening, and in rodent ulcer it is being used quite early with apparently very good results.

Malignant growth of the bladder and the uterus have been treated with fair success, especially in the latter instance, when diathermy has been employed in conjunction with hysterectomy. Most striking results have been obtained in papilloma of the bladder with weak currents, and in advanced cases of malignant stricture of the œsophagus.

It was my very good fortune to see Mr. Harmer and Dr. Cumberbatch employ diathermy at St. Bartholomew's Hospital, and while acting as surgeon at this institution during my stay in England I had several cases of my own which I treated under Dr. Cumberbatch's personal supervision.

Though small papillomata, nævi, and rodent ulcers can be treated with local anæsthesia when only a current of 0.1 ampère is required, in all other instances it is better to use a general anæsthetic. Extra care is needed when open ether is employed, as a spark from the active electrode may easily cause ignition of the ether vapour. It is safer to use chloroform in the later stages of anæsthesia before operating, or to employ intratracheal methods such as Boyle's apparatus.

The following non-malignant cases have been successfully treated with diathermy:—

Fibroma of the naso-pharynx.
Nævi, both superficial and deep. It has been especially successful in pulsating nævi.
Lymphangioma.
Papilloma of the bladder and larynx.
Senile warts.
Epulis.

The remainder of my paper is a digest of several articles by Dr. Cumberbatch.

Before the diathermy current is switched on the electrodes must be in position. The active electrode is placed in the desired position, and must not be moved until the current is switched off, or sparks will dart between the electrode and the body; while anyone who touches the indifferent electrode or the skin of the patient may receive sparks.

The current should start from zero, and its strength should be gradually increased until the tissue in contact whitens. It may remain at this strength. The coagulation slowly spreads, and bubbles of gas and steam escape. The current should then be switched off to prevent sparks from appearing. The process is repeated in adjoining parts until the whole surface of the growth has been treated. The smaller the area of contact the weaker will be the current necessary to produce coagulation.

Technical Principles.

When diathermy is to be used for surgical purposes the current must be led through the tissues that are to be destroyed. The active electrode is placed on the morbid tissue, and the indifferent electrode is placed on the skin of some other part of the body. The current passes through the body between the electrodes, and heats all the tissues, both normal and abnormal, along its path. In order to raise the temperature of the abnormal tissues to a sufficient height without injuring the normal portions, the indifferent electrode makes contact with a large surface of the body (8in. × 6in.) and the active electrode with a small surface of the morbid tissues. The highest temperature will always be in the tissue in immediate contact with the active electrode, while in the tissues along the path of the current the temperature will be progressively lower as the distance from the active electrode is increased till at a certain distance the tissue will be

outside the destructive influence of the diathermy. When the temperature reaches a certain point the tissues in contact become dry, and then they conduct the current badly, and the needle of the ampèremeter swings back to zero; sparks leap over and through the dried tissue on to the moist tissue around. The current must then be switched off, because the effect at this stage is not merely diathermal; there is also excitation of muscles and nerves, and this may become violent. The smaller the electrode the sooner is this stage reached.

Electrodes.—The indifferent electrode, made of lead, 2 mm. thick, should be wrapped in a warm, moist towel. It is of great importance that the moistened towel should make contact at all points with the body, and that it should not get dry, otherwise the skin will be burnt.

The active electrode that is most commonly used is a five-pronged fork on a flat disc. A special handle with an intermediary piece is required for treating growths in the larynx, bladder or vagina, and a special end-piece for malignant stricture of the rectum or œsophagus.

A general anæsthetic will be required in most cases, and if ether is used diathermy must not be applied to the mouth or air passages until the ether vapour is well diluted; it is safer to finish the anæsthesia in these cases with chloroform. However carefully the diathermy is applied sparks will occasionally occur.

When the high-frequency current flows through the body no sensation is perceived except that of warmth, even though the current has attained an intensity that would be the minimum lethal value for the constant current.

The diathermy apparatus must be supplied with an alternating current. If the mains furnish a direct current the latter must be converted into an alternating current by means of a motor transformer.

Medical electrodes always make a large surface of contact with the body; the current then passes into the body through a wide portal of entry, so that its strength per unit of area, *i.e.*, its density, is low and the heating effect slight. Surgical electrodes make a very small surface of contact with the body, and consequently the density of the current is very great, and the temperature of the tissues around the electrodes rises in a few seconds to coagulating point.

The high-frequency current produced by the diathermy machine possesses distinctive features that endow it with its special property of producing a large amount of heat. First and most important, the oscillations are sustained. The diathermy current can therefore produce a large amount of heat in a circuit of suitable resistance.

Properties of Diathermy Currents.

Diathermy and other currents of high frequency oscillation produce no electrolytic changes in saline solution or in the tissues except those that are the secondary result of the heat produced in them. When they pass through the body they do not cause muscular contraction nor perceptible stimulation of the excitable tissues. The only sensation produced is warmth.

Furthermore, the high-frequency current travels more in the superficial part of a metal conductor, while the direct current travels equally through the superficial and deep parts. If the frequency is very high, several millions per seconds, the conducting part is an extremely thin superficial layer, less than $^1/_{100}$ mm. thick. In their passage through saline solutions high-frequency currents do not show preference for the superficial layers. When the diathermy current is used the effect of heat on a dilute solution is soon apparent, and it boils violently; when the electrodes are placed parallel and an inch apart they are bridged by bubbles of steam, and sparks will appear.

If the current is passed through egg albumin by electrodes terminating in small discs the latter are soon bridged by a strip of coagulated protein. If the current is led through egg albumin by means of two electrodes, one a broad plate, the other a small disc, coagulation will appear first at the disc because the current density is greatest there.

The heating effect of the diathermy current can also be shown by placing two disc electrodes, one inch in diameter, on opposite sides of a cube of raw meat. A cylinder of coagulated muscle protein gradually joins the two discs. As the temperature of the coagulated protein rises it becomes drier and its resistance greater. Finally bubbles of steam appear and sparks are seen, and the tissue immediately around is charred.

The study of the passage of diathermy currents through the living body is difficult, because the tissues are channelled by vessels through which fluid is continually passing. These currents penetrate into the deep parts whether the electrodes are placed on opposite sides of a limb or at opposite ends. They appear to take a course that is more closely confined to the parts immediately between the electrodes, as shown in the coagulation experiments.

Diathermy is used in surgery for the destruction of diseased tissue and new growths. It is brought about by the heat temperature developed in the morbid tissues when the diathermy current passes through them. It differs from other methods of cautery in that the heat is generated within the tissues instead of being spread to them by conduction from a metal that has been previously heated to redness. In diathermy there is no narrow limitation to the spread of the cautery, as the tissues are conducting not heat but a current which generates heat within them. This effect has been described in the coagulation experiments of egg albumin above mentioned.

The temperature obtained during diathermy is sufficiently high to destroy both healthy and diseased tissue, so that if both are intermingled in the same zone both will be destroyed, but in the outlying zones the abnormal cells may succumb to a temperature that is just insufficient to impair the vitality of healthy cells.

If the single needle is used and the finger tip be placed on its point a current of 0.1 ampère will produce a minute white area on the skin without pain. If a metal disc, 2 c.m. in diameter, be used a current

of the same strength would produce slight warmth, while one ampère at least would be required to cause coagulation.

References.

E. P. Cumberbatch, M.B., M.R.C.P., "Diathermy: Its Production and Use in Medicine and Surgery," *Archives of Roentgen Ray*, July, August, September, November, December, 1914, January, 1915.

Ibid., "Treatment of Inoperable Malignant Growths by Diathermy," *Archives of Roentgen Ray*, March, 1915.

Ibid., *Archives of Radiology*, June, 1915.

W. D. Harmer, F.R.C.S., *Proceedings of Royal Society of Medicine*, 1912-13.

W. D. Harmer, 1914, *British Medical Journal*, December 12, 1914.

Andrew Fullerton, F.R.C.S., *British Medical Journal*, November, 1914.

E. S. Judd, *Journal American Medical Association*, November 16, 1912.

SOME OBSERVATIONS ON ACUTE RENAL INFECTION IN PREGNANCY AND THE PUERPERIUM.[1]

By **S. Harry Harris, M.D., Ch.M.,**

Honorary Urologist, Lewisham Hospital; Honorary Surgeon, South Sydney Women's Hospital.

It is now more than three years since I brought before the Branch the results of some preliminary investigations I had been carrying out on the condition of *pyelitis gravidarum* and allied types of renal disease incidental to pregnancy (*Australasian Medical Gazette*, XXXIII., 192, 1913, and XXXIV., 47, 1913). Relative to our present subject, the following tentative propositions were then made: (*a*) That dilatation of the renal pelvis and ureter exceeding 4 drachms (about 15 c.cm.) probably preceded the onset of infection in all cases of true *pyelitis gravidarum*; (*b*) that this condition of hydro-nephrosis and hydro-ureter was the cause of many of the right lumbar and abdominal aches and pains incidental to pregnancy; (*c*) that drainage of the retained urine and pus by the retained ureteral catheter was a rational therapeutic procedure, and would probably yield greater relief in a shorter time, especially in serious cases, than any other method of treatment. Further experience has afforded confirmation of the accuracy of these surmises, and has led to the formation of certain conclusions, which it is proposed now to bring forward for your consideration.

To date I have notes of upwards of 90 cases of renal infection occurring in pregnancy. Many of these were mild cases, and seen only on one occasion, the diagnosis being based on ordinary clinical methods. These cases were treated by advice and medicine, and were, as a rule, promptly lost sight of. Several were renal infections, dependent on causes other than the existing pregnancy, and were not true cases of *pyelitis gravidarum*. These will not be considered in detail here.

Thirty-two of the total number were more or less serious cases of *pyelitis gravidarum*. The patients were either sent into hospital on account of the gravity of their condition, or seen in consultation with their medical attendants, after they had proved resistant to the ordinary methods of treatment. These 32 cases were all subjected to careful cystoscopic examination, and treated by the retained ureteral catheter. They form, in the main, the basis for the subject-matter of this report.

Twenty-two of the patients were primiparæ, and ten multiparæ. The pelvic capacity in each exceeded 4 drachms, the average being approximately 7½ drachms; the greatest was 3½ ounces. Eleven other patients pregnant from sixteen weeks upwards, suffering from more or less vague, or in some cases severe, pains in the region of the right kidney whose urine was full of pus and bacteria at the time of examination, were also subjected to cystoscopic examination. The pelvic capacity in each case exceeded 4 drachms, and relief of symptoms followed catheterization in all.

It is widely accepted that the majority of pregnant women have some dilatation of the right ureter, which is not necessarily associated with painful sensations. This is quite in accord with experimental evidence, for it is well known that both partial and total occlusion of the ureter are frequently remarkable for complete absence of pain, even though dilatation of the pelvis and ureter be progressive.

It is by relying on the above evidence that I have ventured to assume the correctness of my first two propositions.

The right kidney was involved in every one of the 32 cases of this series, in six both sides. In no case was the left side alone affected. In the six bilateral cases the left kidney was infected after the right and to a less degree, as though it were a secondary and ascending infection. The same extent of dilatation was never found in the left kidney, though the cubic capacity in each case was above the normal (about 10 c.cm., or 2½ drachms).

Six other cases, in which the symptoms were limited to the left side, were found on subsequent examination to have their origin in some cause other than *pyelitis gravidarum, viz.*, renal calculus (2), renal tuberculosis (1), ureteral calculus (1), recrudescence of an old-standing pyelonephritis (1), and renal infarction (1).

In every case of the 32 of the series a pure growth of *bacillus coli communis* was obtained from the catheterized urine from the renal pelvis, though in seven of the cases the bladder urine showed a mixed infection, with staphylococci in six and with streptococci in one case.

Five other cases, in which the urine obtained by catheter from the renal pelvis showed the presence of streptococcus (1), staphylococcus (3), or tubercle bacillus (1), either alone or mixed with *bacillus coli communis*, proved to be due to causes other than *pyelitis gravidraum, viz.*, appendicitis (1), renal calculus (2), and renal tuberculosis (2).

These findings warrant the two deductions that pyuria and pain confined to the left side are probably due to causes other than *pyelitis gravidarum*, and that pyuria in pregnancy associated with other organisms in the renal pelvis than *bacillus coli communis* probably owes its origin to some cause other than *pyelitis gravidarum*. When either of these two conditions obtains, I believe it will be found a valuable working rule to assume the pres-

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on August 25, 1916.

ence of some other condition than *pyelitis gravidarum* until the contrary is proved.

Much discussion has centred round the cause of the ureteral obstruction; but no finality has been reached. In 18 of my 32 cases, the obstruction was situated from six to eight inches above the ureterovesical orifice, *i.e.*, either at or just above the level of the pelvic brim. In three of these 18 cases in which pyelo-ureterograms were made, the obstruction in all was seen to be about one to two inches above the brim. In two other cases some obstruction was encountered at the uretero-vesical orifice. In the remaining 12 cases no obstruction was detected by the ureteral catheter, though in one case in which pyelography was performed, the ureter was seen to be dilated to within about two inches of the pelvic brim.

I think it very probable that a tense *psoas parvus* tendon is a contributing cause of the ureteral obstruction, at any rate, in some of these cases. This muscle has its origin from the upper lumbar vertebræ, and is inserted into the ilio-pectineal line and eminence. In its lower portion it assumes the form of a flat tendon over which the ureter courses. It would conceivably be put on the stretch by the backward rotation of the lumbar spine which takes place in pregnancy. However, this is merely supposition; I have had no opportunity of verifying this during pregnancy.

Course and Treatment of Pyelitis Gravidarum.

The treatment of *pyelitis gravidarum* may be considered broadly under the following headings:—

I. Ordinary therapeutic measures, including rest, posture, dietetic, medicinal (including alkalies and antiseptics), vaccine and serum.
II. Ureteral catheterization.
III. Induction of premature labour.
IV. Nephrotomy and nephrectomy.

I. Mild cases, as a rule, subside rapidly under ordinary medical treatment. It must be remembered, however, that subsidence of symptoms and cure of the disease are by no means synonymous expressions. It is widely held that the pus and organisms persist in the urine in these cases until the termination of pregnancy, and then rapidly disappear. The latter part of this statement, however, is by no means always the case. I have seen several cases of pyonephrosis of greater or less degree, the symptoms dating from a pregnancy, complicated by this mild type of disease.

In mild cases of *pyelitis gravidarum*, which run a favourable course, the renal tenderness rapidly disappears. In such cases hexamine should be pushed either to the limit of toleration, or, preferably, until formalin can be found in the urine by the Rimini-Burnam test. This, as a rule, requires the exhibition of much larger doses than are commonly prescribed, 60 grains or even more *per diem* being sometimes requisite. It will occasionally be necessary to increase the acidity of the urine by giving, at the same time, 15 to 30 grain doses of acid sodium phosphate every three or four hours, or even more frequently, before the formalin reaction is obtained.

Cases of a moderate degree of severity often settle down rapidly when the urine is rendered alkaline. For this purpose ½ drachm doses of sodium bicarbonate may be given every two to four hours during the acute stage. It is customary to combine free water-drinking with the alkaline treatment. When the acute symptoms have subsided, the urine is rendered acid by giving acid sodium phosphate and then the hexamine treatment instituted. It is commonly advised that the patient should lie on the side opposite the lesion, with the idea of relieving the pressure of the uterus upon the ureter. The value of this procedure is problematical, and patients frequently will not tolerate it. It is, at any rate, harmless.

Vaccine treatment and anti-coli serum I have employed in many cases, but do not think they have been of any material assistance.

In the majority of all cases of *pyelitis gravidarum* no other special treatment will be required. Where the above measures fail I think ureteral catheterization should, when available, be employed before proceeding to more radical measures.

II.—Ureteral Catheterization.

The 32 cases of this series in which ureteral catheterization has been employed may be grouped as follows:—

(*a*) Cases which have failed to respond to medical treatment after a reasonable lapse of time.
(*b*) Cases in which the acute symptoms have passed off, but in which the kidney remains markedly tender, or where there is much pus or albumin in the urine.
(*c*) Hyperacute cases.
(*d*) Relapsing cases.

With regard to group (*b*) a word of explanation will be in order. Persistent tenderness on palpation of the kidney in these cases is evidence of increased intra-pelvic tension, and evidence also that the ureteral obstruction, whatever its nature, is still in action. In such cases, the dilatation will presumably be progressive, and, as a matter of fact, it is in some of these cases in which the greatest dilatation has been found. With regard to pyuria and albuminuria, it need only be pointed out that a marked infection of the renal parenchyma and pelvis can scarcely persist for several months without some permanent and very material damage resulting therefrom, and this altogether apart from the factor of pelvic dilatation, which, when once firmly established, is irremediable.

It is in class (*c*) in which the most rapid and dramatic recoveries are effected. It has certainly been a most instructive experience in many of these cases to see the pus literally pour from the end of a large ureteral catheter, as though a tap were turned on, as soon as the renal pelvis has been reached.

No anæsthetic of any kind has been employed in any of these cases. In all the hexamine treatment has been used in addition. A No. 11 French ureteral catheter will pass to the kidney in most cases without any difficulty. Failing this, a No. 7 French

catheter is used, and replaced later, if necessary, by the larger size. The catheter is retained in position, preferably for at least two days after the acute pain and tenderness have subsided. As a rule, the acute pain disappears immediately the renal pelvis is emptied. The fever and tenderness may take 36 to 48 hours to subside; in my experience rarely longer. I think it is an advantage to retain the catheter in the kidney as long as the urinary condition shows progressive improvement, at any rate for a period of a week or ten days. If this plan be followed, a repetition of the treatment will rarely be required on account of recurrence of symptoms. Three only of my cases, as far as I am aware, relapsed. The relapse occurred respectively seven, ten and twelve weeks later; the condition cleared up rapidly on renewal of the treatment. The longest period of retention of the catheter in any of the 32 cases was ten days. By these means the urine has been rendered sterile and free of pus in three cases in seven, nine and ten days respectively. In all but one case of the series the improvement, both local and general, was immediate and continuous while the patient was under treatment, and such, as in my experience, is never to be anticipated in cases of similar severity treated by other means, except by induction of premature labour. Of course, while the pus and organisms are still present, these cases cannot be considered cured. The only patient of the 32 who failed to respond to this treatment was one who had very severe bilateral disease. In this patient labour was induced as she was almost at term; satisfactory drainage could not be established through the ureteral catheter. In most of the cases a 2% solution of protargol was injected into the renal pelvis several times daily while the catheter was *in situ* and retained in the renal pelvis for ten to fifteen minutes. A careful watch must be maintained throughout, to see that the catheter does not become obstructed. Should this occur, syringing with sterile water or saline solution will generally re-establish the flow. Most careful asepsis should be maintained from beginning to end of the treatment. Hospitalization is advisable, and was employed in all of these cases.

III.—Induction of Labour.

This, I believe, is indicated in all cases which are not amenable to ureteral catheterization, or in which ureteral catheterization is indicated (*vide supra*), but is not available.

In bringing this aspect of the subject before you, I am quite aware that the treatment advocated is far more radical than most obstetricians consider necessary. If, however, we consider these cases from the urological point of view, we cannot but be impressed by the frequency of the various degrees of pyonephrosis which occur in women whose symptoms date back to an antecedent *pyelitis gravidarum*, and in whom the condition had been allowed to run on for weeks or months, until the spontaneous termination of pregnancy.

I have notes of ten such cases, three of which have already been recorded in *The Medical Journal of Australia*, 1914, p. 35, and p. 493, seen at varying periods of time after delivery. In no case have I been successful in clearing them permanently of their symptoms by any means other than nephrectomy. As far as my experience goes, the damage in these cases is permanent, though treatment may render the patients more or less free of symptoms for greater or less prolonged periods of time. I have not seen the slightest benefit which can legitimately be ascribed to the use of vaccines in these cases in whatever doses or however prolonged their use.

We have no means of estimating in what proportion of women this bequest is received from their pregnancies. Many of these women suffer not at all from renal symptoms, even though pus cells and *bacillus coli communis* be present in the urine in large numbers. This much, however, may be stated without exaggeration, that such crippled kidneys do result in a sufficiently large number of cases to make it worth the obstetrician's while to consider very carefully what attitude should be adopted with regard to the prophylaxis of them. The dilated infected kidney, which is of not infrequent occurrence in woman past the menopause, and for which, at the time, no adequate explanation can be found, is, I believe, the end result in the life history of some of these cases.

IV.—Nephrotomy and Nephrectomy.

These procedures are only mentioned for the sake of completeness. The former has been abandoned by almost universal consent; the latter can be required very rarely, if ever, in true cases of *pyelitis gravidarum*.

Acute Renal Infection in the Puerperium.

The typical acute renal infection of the puerperium is essentially a different disease to *pyelitis gravidarum*, though, of course, the latter often runs on into the puerperium, or relapses at this time. A hydro-nephrosis and hydro-ureter, which has not become infected during the pregnancy, may also become infected during the puerperium.

The type of renal infection which most commonly occurs in the puerperium is a true ascending pyelonephritis, which may go on to the formation of multiple renal abscesses, or even sacculation (*i.e.*, pyonephrosis). It may be due either to catheter infection (being analogous to the catheter fever of the male genito-urinary patient, which too may proceed to the formation of surgical kidney and pyonephrosis) or to obstetric trauma of major or minor degree. There is characteristically in these cases no associated dilatation of the ureter and renal pelvis. Either or both kidneys are equally liable to involvement. These cases are not amenable to ureteral catheterization, and must be treated on general medical and surgical principles. It would seem that special care is required in catheterizing post-eclamptic patients. I have seen several in whom a pyelonephritis followed catheterization after delivery, for the purpose of obtaining urine for estimation of the progress of the almuminuria.

In case of retention of urine where catheterization has to be resorted to in this or any post-operative

condition, it will be found valuable to inject a half-ounce of sterile glycerine into the bladder after withdrawing the urine. Few of the patients will then fail to micturate naturally thereafter.

Summary.

(1) *Pyelitis gravidarum* is a pathological entity *sui generis*. It is characterized typically by dilatation of the right renal pelvis and ureter exceeding the capacity of a half-ounce, ureteral obstruction at a short distance above or at the level of the pelvic brim, and by the presence of pus and *bacillus coli communis* in the urine.

(2) Hydro-nephrosis and hydro-ureter exceeding a half ounce, associated or not with pain, precede the onset of infection probably in all cases of *pyelitis gravidarum*.

(3) The disease is either limited to or involves primarily the right upper urinary tract, the left being involved (if at all) later, and to a less degree.

(4) In the vast majority of cases (if not in all) the infecting organism is the *bacillus coli communis*.

(5) When organisms other than (or in addition to) the *bacillus coli communis* are found in the urine drawn by catheter from the renal pelvis, there is probably some cause other than (or in addition to) *pyelitis gravidarum*. This does not apply in the case of urine obtained by catheter from the bladder, which not infrequently shows a mixed infection in *pyelitis gravidarum*.

(6) When in a pregnant woman there is pyuria and pain involving only the left kidney, the condition probably owes its origin to some cause other than *pyelitis gravidarum*.

(7) Serious cases, or even cases with persistent renal tenderness, especially if associated with a marked grade of pyuria and albuminuria, should not be permitted to drag on indefinitely, but should be submitted to ureteral catheterization, or, failing this, to induction of premature labour. Relief of the obstruction to the urinary flow is as urgently needed in this condition as it is in cases of stricture of the urethra, enlargement of the prostate or in infected ureteral calculus.

(8) The typical acute renal infection of the puerperium is essentially a different disease to *pyelitis gravidarum* and is, in most cases, a true ascending pyelonephritis, analogous to the catheter fever and surgical kidney of the male genito-urinary patient, though not necessarily, or perhaps even in a majority of cases, due to catheter infection.

MEDICAL NOTES ON TROOPS FROM AUSTRALIA LANDING AT SUEZ

By **Frederick Lovegrove, M.B., Ch.B. (Melb.),**
Captain, A.A.M.C.; E.M.O., Australia.

During ten months' tenure of the unique appointment of Australian Embarkation Medical Officer, I have had peculiar opportunities of observing the condition of our soldiers arriving in Egypt.

The physique of our men has always excited the admiration of the British and Indian officers who have watched them disembark—and, if an excess of high spirits in the troops has occasionally given an opportunity for military criticism, from a medical point of view this sign of robust health is altogether satisfactory.

The time of the voyage to Egypt from Melbourne averages thirty days; but, owing to delays at ports of call, many of the troops spend five weeks or more on board ship. The fact that the death-rate is so low and the condition of the men so good on arrival speaks highly for the arrangements on the ships and the watchful care of the medical officers on transport duty. A few accidents and an occasional case of appendicitis form the bulk of the cases removed to general wards of Suez Hospital.

Infectious disease, however, has occurred on a large number of vessels, and it has been possible to form some opinion of the epidemics present in the various camps in Australa, by noting the prevalent type of infectious disease on ships from different States.

(1) Influenza has been far and away the most common complaint. Though some of the patients are still febrile on arrival, and are sent to hospital here, the epidemic is usually spent before Egypt is reached.

(2) Pneumonia is occasionally severe, and is usually associated with an epidemic of influenza. Twelve months ago a certain percentage of cases developed empyema; for many months now there have been no cases of this kind.

(3) Measles has been chiefly found among Victorian troops, and has been represented every month. South Australia has sent its quota during April and May. In some cases the epidemic has been widespread at first, and has worked itself out before arrval. In other cases, a few men have been picked out early and isolated, and no epidemic has occurred. Occasionally a ship has arrived with a large number of cases, evidently originating after embarkation, from some unrecognized case on board.

(4) Mumps has been represented largely every month. This disease is practically a perquisite of New South Wales and Queensland troops. The long incubation period and impossibility of recognizing the disease in an early stage makes a general ship infection the rule, and the epidemic is usually at its height when the troops arrive here.

(5) Cerebro-spinal meningitis has not occurred as an epidemic, but has appeared on the returns every month, with one or two cases. Victoria has contributed the largest number of cases, except in November and January, when New South Wales supplied the largest number. Victoria has had a monopoly for the past four months.

(6) Enteric fever has been remarkable by its rarity. Ten cases only have been noted, of which New South Wales contributed six, five from one ship, Victoria one in each of the months of September, November and December, and South Australia one in December. No cases have occurred this year.

Chicken-pox, scarlet fever and roetheln have occasioned no trouble here. Small-pox, plague or

cholera have not occurred among troops on Australian transports.

(7) Venereal Disease.—While the percentage of troops arriving in Egypt with venereal disease is not high—the actual figure is 0.75%—the total number of effectives withdrawn from combatant duty owing to this cause is sufficiently large to make the subject one of importance. In ten months 530 men with gonorrhœa and 90 men with syphilis have had to go to hospital immediately on arrival. Soft sores have almost always been cured on the voyage, so that practically all chancres seen here are syphilitic. By far the greatest number of syphilitic cases hail from Queensland and New South Wales, and while gonorrhœa is the main feature of Victorian venereal cases, the two previously mentioned States take the precedence here also. A rise in the numbers from Western Australia has lately been noticed. This may possibly be due to the fact that men from other States found to be suffering from venereal diseases while crossing the Bight are landed in Western Australia. There is a general rise in the proportion of syphilis to gonorrhœa, and this is particularly noticeable among Queensland troops, where the general ratio of one syphilis to six gonorrhœa is now more like one to one, and occasionally the cases of gonorrhœa are outnumbered by syphilis.

Reports of Cases.

CASE OF FRACTURED BASE OF SKULL, WITH COMPRESSION SYMPTOMS.[1]

By **A. J. J. Triado, M.B., B.S. (Melb.),**
District Medical Officer, Carnarvon, W.A.

I have not seen reported any case of fracture of the base of the skull with definite signs of compression treated by immediate operation.

I am indebted to an article by Keith W. Monsarrat in the "System of Treatment," by Latham and English, for my decision in operating in this case. The man was dying, in my opinion, and hence I decided to operate immediately, to relieve the intracranial pressure.

On the 3rd March, 1916, W.M., aged about 40 years, employed unloading the *Minderoo*, at Carnarvon, slipped backwards off a partially loaded truck. The height he fell was about 10 feet, and his own height also, as he was standing up.

His head struck the jarrah jetty, missing the rails. He was immediately seen to, and was found to be quite unconscious. He had a slight abrasion at the back of the scalp. This accident occurred about 4.30 p.m. and before 6 p.m. he was brought to the Hospital to me.

I examined him, but could discover no fracture of the vault. He was quite unconscious. He was suffering from more than concussion of the brain, as evidenced by the fact that lumbar puncture and some sensory stimuli completely failed to rouse him.

Slight inequality of the pupils was present, and from the first his pupils did not react to light. Breathing was somewhat sterterous. His temperature was normal, and, in a few hours, slightly subnormal. The pulse was slow, full and bounding, 55 per minute. He had a slight ecchymosis in left upper eyelid, which increased in a few hours.

His head was shaved, and an ice-bag applied. It was with difficulty that I was able to give him 5 grains of urotropine (or rather "formin," which is what I have) every four hours.

About 9 o'clock on the same night he became very restless at intervals, and I gave him morphine (gr. ¼) and atropine (gr. $^1/_{150}$). This had very little effect.

At 8.30 a.m. on the following day, after a night of periods of great restlessness and periods of quietness, I noticed, during the restless stages, that there was a slight difference between the power in the left and that of the right arm, the former being the weaker. I decided to operate at once, as I considered that this slight focal symptom was sufficient to indicate where to trephine, especially as he appeared to be dying. His pulse-rate was slower and the pressure increased. The respiration was sterterous, and the face cyanosed. I had already decided to trephine and drain the under surface of the brain, but was undecided where to trephine. About 9.30 a.m., when everything was ready, his coma was considerably deeper.

The scalp was painted with iodine. I made a circular flap over his right parietal region, separated the fibres of the temporal muscle, after incising the temporal fascia, and trephined the skull over the anterior branch of the middle meningeal artery. Chloroform was administered after a preliminary hypodermic injection of morphine (gr. ¼) and atrophine (gr. $^1/_{150}$).

As soon as the piece of bone was removed at the back part of the circular opening, the artery was seen torn across and bleeding profusely. This was rapidly tied in two places.

There was a considerable amount of hæmorrhage and a little clot from the surface of the *dura mater*. The bleeding seemed to stop in a few minutes.

I then noticed that the *dura mater* was very tense and bulging somewhat, so I decided to open it crucially.

I did so, and at once free hæmorrhage occurred from the under surface of the brain. This continued for a few minutes. I then inserted a spatula (about 6 inches long and ¾ inch wide) under the brain, towards its anterior portion, and more blood passed out as I pressed the brain gently upwards. After about three or four minutes the bleeding became less profuse, but oozing still continued. I therefore put a small rubber drainage-tube in under the brain, and pointing forwards. This tube lay about one inch under the brain, and rested in the anterior fossa.

I then replaced the temporal muscle and sewed up the temporal fascia completely, except for the small space required for the drainage-tube, the exit of which was secured by a silkworm gut stitch to the posterior end of the incision. The skin was stitched up, and a voluminous dressing of sterilized gauze applied. I had taken care that all bleeding from scalp vessels was stopped.

After a few hours I noticed that the inequality of the pupils had disappeared; but they did not yet react to light. The patient stood the operation well; no trouble whatsoever was experienced. Immediately after, eight ounces of saline solution were ordered and given rectally every four hours for three doses.

He retained all the saline solution, and was quiet during the day. At about 9.30 p.m. he became restless, and had to be tied to the bed and morphine and atropine given again. The narcotic had little effect till about 7 o'clock on the following morning.

During the night, extra layers of gauze were applied over the original dressings, as they became saturated with blood.

About 24 hours after the operation I removed all the dressings, except a small piece in contact with the wound. All these dressings were blood-stained, and, on lifting the gauze in contact with the wound, blood was seen trickling from the tube. The patient remained fairly quiet all day, but got very restless again at night-time. Morphine and atropine were given again. Since admission, the urine had to be removed reguarly.

After a very restless night he was quiet again during the following day, *i.e.*, March 5. The dressing over the wound was removed; but, though blood-stained, it was fairly dry, and no further oozing could be seen coming from the tube. The scalp was painted with tincture of iodine and fresh dry dressing of sterilized gauze applied. On this day pupils reacted slightly to light. An enema was given with good result.

On 6th March the wound was examined, and it was found that no bleeding whatsoever had occurred since the

[1] Read at a Meeting of the Western Australian Branch of the British Medical Association on June 21, 1916.

last dressing. The pupils reacted distinctly to light. Four doses of calomel (gr. ½) were given at hourly intervals. The urine had to be removed.

During the day the patient's mental condition was fairly quiet, but at night he again became very restless. Bromide of potash (gr. xv.) and aromatic spirit of ammonia (gr. x.) were started about 7 p.m. and continued every four hours. At about 12 p.m. he was so restless and excitable that I ordered morphine and atropine again. An enema was given with good result.

Again after a restless night he was quiet again on March 7. As no hæmorrhage had occurred for over 48 hours the tube was removed, the scalp painted with tincture of iodine and a dressing applied. The formin was discontinued The pupils reacted more readily to light and were equal, as they had been since the operation. The urine had still to be removed. An enema was again given with good result.

On 8th March he was again quiet after the usual very restless night. He was easily roused, and when spoken to, answered in an incoherent manner, though he said "Very nice" after a drink of milk and soda. He had taken liquid nourishment better and better each day since 24 hours after the operation. The pupils reacted well to light. He passed his urine naturally after making the nurse understand that he wished to micturate.

After a restless night the patient was quiet again on March 9, and spoke a good deal on being roused, but only disjointedly and incoherently. He passed urine naturally and regularly. An enema was given with a good result. He was ordered hydrobromide of hyoscine (gr. $^1/_{100}$) for the night, instead of morphine and atropine. Following this he had another restless night. On March 10 his mental condition was the same as on the previous day. A small enema was given with satisfactory result. He passed another very restless night, but was quiet again on the 11th. The stitches were removed and the wound was found to be healed by first intention. The pupils were practically normal in their reaction to light.

The patient had taken nourishment well all along, in gradually increasing quantity from the beginning—milk, milk and egg, boiled custards, jellies, meat juice, etc.

On March 11 he was given a little bread and butter and mashed potatoes. An enema was followed by a good result. His mental condition had improved; he knew his own name, but had no idea where he was, or the names of the doctor or the nurses. Hyoscine (gr. $^1/_{100}$) was given at night.

The condition remained practically unchanged during the following three days. He spent restless and boisterous nights, but was quiet during the day-time. He remembered that he had come from England 25 years before. He appreciated his food, and asked for more. The improvement in the mental condition became apparent on the third day, when he first appeared to realize that he was in a hospital. He then became able to answer questions more or less intelligently, but had no recollection of where he was. After another restless night he was seen on March 15th by Dr. Laws, who had come from Bernier Islands to see him. Dr. Laws had known the patient a few years before, at Prigelly, and the man appeared to recognize him. He had some difficulty in placing him exactly. At Dr. Laws' suggestion I stopped the bromide and hyoscine, and gave him 10 grains of formin every four hours. He had 15 grains between 7 p.m. and 11 p.m. He slept quietly for the first time, and when he awakened on the morning of the 16th he was apparently quite well mentally. He was rational. and knew where he was. He recognized me and others whom he had known before, including Dr. Laws.

From that time to March 31st he remained perfectly well in body and mind. The only gap in his memory is the absolute blank concerning his accident. He has no headaches nor any other troubles whatever.

I am indebted to Dr. Laws for his suggestion to give the patient formin as a cerebral sedative. It seemed to act like a charm. I continued the formin for a fortnight.

I have detailed this case, as I consider it interesting, for the following reasons:—

(1) The early operation to relieve the brain of its effused blood before much damage could be done to the brain matter. In all cases of fracture of the base of the skull, no matter in what situation, this treatment should be followed.

(2) The gradual improvement of the patient's memory within a fortnight of the operation.

(3) The great value of formin (hexamethylene-tetramine) as a cerebral disinfectant (given internally) and as a cerebral sedative afterwards, when bromide, hyoscine and morphine and atropine had failed.

Reviews.

RHINOLOGY AND LARYNGOLOGY.

The second edition of "Diseases of the Nose and Throat,"[2] by Sir St. Clair Thomson, is justified by the thorough revision of the first edition, published four years ago.

New matter has been introduced, dealing with suspension laryngoscopy for the examination of the larynx.

A new section that will prove of interest to oculists has been devoted to intra-nasal dacryocystotomy, an operation which promises relief or cure for troublesome conditions of the lachrymal apparatus.

The chapter on the removal of tonsils has been thoroughly revised. Enucleation of the tonsils is recommended, in preference to their partial removal, which so often resulted from the operation known as tonsillotomy. Interesting descriptions are given of the author's method, in which the vulsellum is used to draw out embedded tonsils through the ring of the guillotine, and also of the reverse method of using the guillotine, first described by Whillis and Pybus, in 1910. Celsus is quoted as the first surgeon to practise enucleation. He wrote before the Christian era: "Tonsils that are indurated should be disengaged all round by the finger and pulled out."

Suppurative diseases of the nasal sinuses are thoroughly dealt with. The wide prevalence of these diseases is being increasingly recognized. Fein's estimate, in 1898, of at least 2% of the patients attending a throat clinic suffering from these diseases is certainly not below the mark. The valuable aid given by radiograms in diagnosis of frontal and ethmoidal sinusitis tends to show the greater prevalence of these diseases than was hitherto suspected. The various operations on the sinuses are described at length, and the discussion as to their selection in particular cases is of great value. The author, who was once conservative in his attitude to intra-nasal operations on the frontal sinus, now rather favours this method in a certain class of cases. The exceptionally wide clinical experience of the author is evident throughout the work. Full descriptions have been given of symptoms and of diagnosis, and much aid by means of diagrams and illustrations for the various operative procedures.

The work can be recommended as a text-book to students and one of great value to those engaged in special and general medicine.

STATE DRUG DEPOT.

It has been announced in the public press that the Minister of Public Health of New South Wales has decided to establish a State Drug Depôt. It is claimed that since the State Government contributes approximately 60% of the amount spent for the maintenance of the hospitals, the committees of the hospitals and of the Friendly Societies should co-operate with the Government in any scheme for the exercise of economy. The Minister proposes to call for tenders in Europe, America and Australia for the supply of drugs. If this means that foreign firms will be allowed to compete with British ones, it is to be hoped that Mr. Black's scheme will fail. There is no reason why Australian industries should be given preference and English products chosen when Australian manufacturers fail to offer first-class goods. The development of the Australian drug industry should receive all the support that the State and private individuals can extend to it.

[2] Diseases of the Nose and Throat, by Sir St. Clair Thomson, M.D., F.R.C.P. (Lond.), F.R.C.S. (Eng.); 1916. London, New York, Toronto and Melbourne: Cassell & Co., Ltd.; pp. 858, with 22 plates and 337 figures in the text. Price, 30s.

The Medical Journal of Australia.

SATURDAY, OCTOBER 7, 1916.

The Call to Arms.

On the twenty-ninth day of September His Excellency the Governor-General and Commander-in-Chief of the Commonwealth of Australia, by proclamation, called upon all male inhabitants of Australia who were then or thereafter became liable for service in the Citizen Forces, being then or thereafter of the age of twenty-one years and upwards, but under the age of thirty-five years, and unmarried or widowers without children, to enlist, and he further called upon every person referred to in the proclamation, unless exempted from service under any regulations made under the Defence Act, 1903-1915, and the War Precautions Act, 1914-1916, to render continuous military service within the limits of the Commonwealth and any territory forming part of the Commonwealth during the continuance of the present war. The Governor-General directed those called to enlist to attend for enlistment at such times and places as may be notified by the Military Registrar of the Military Sub-district in which they reside, by notices exhibited at post-offices or other place authorized by the Military Board, or by notice in the public press or by notice posted to their last place of abode. The proclamation did not take effect until the second day of October.

All men designated in the proclamation, including those married since the Prime Minister made the announcement of his intentions in Parliament, must report as directed, under a penalty of imprisonment, with or without hard labour, for any period not exceeding six months. Men are being called to register according to the alphabetical order of their names. The Prime Minister announces that when the whole registration is complete a number of men will be drafted into camp to fill up the deficiency between the number who have volunteered and the number which are required for active service.

It should be noted that all men, including medical practitioners, referred to in the proclamation, must enlist, even if they consider themselves to be exempted from service. After enlistment a man may apply for a certificate of exemption from continuous service. The regulations gazetted direct, *inter alia*, that any person, claiming to be entitled to exemption under the provisions of the Defence Act and under these regulations or in respect of whom his employer makes an application for exemption on the ground that the employee is engaged in work of national importance, shall not be required to perform any military service pending the hearing of an application by a local exemption court for the grant of a certificate of exemption to that person.

The attention of members of the medical profession may be directed to certain regulations dealing with certificates for exemption. Applications can be made on the ground that he is a medical practitioner employed in a public hospital: on the ground that it is expedient in the national interest that he should, instead of being employed in military service, be engaged in other work in which he is habitually engaged: on the ground that it is expedient in the national interest that he be engaged in other work in which he wishes to be engaged: on the ground that serious hardship would ensue if he were called up for military service, owing to his exceptional financial obligations: on the ground that he is the sole remaining son or one of the remaining sons of a family of whose sons one-half have enlisted prior to October 2, 1916: on the ground that he is the sole support of aged parents or a widowed mother or orphan brothers and sisters, under the age of sixteen years or physically incapable of earning their own living: or on the ground that he is the only son in a family. If the local court of exemption considers the grounds of the application established it shall issue a certificate. It is further provided that where it is proved to the satisfaction of the court that serious hardship would ensue if a man were called up for service, owing to his being the sole proprietor of a business upon which the support of a family exclusively or mainly depends, and it is impossible for him to make arrangements for the carrying on of his business in his absence, of which the court shall be the judge, a certificate shall be issued.

DIATHERMY.

The use of heat to destroy localized portions of tissue is of ancient origin. The manner in which the heat has been applied has, however, varied greatly with the centuries. The actual cautery, boiling water and heated irons have served for this purpose. Such methods are crude, and permit of little, if any, regulation of the change of temperature in a small area. Within recent years more refined methods have been introduced, which enable the surgeon to control the speed with which the temperature of the tissues is raised, and to determine the size of the heated area. A comparatively slight rise of temperature leads to coagulation of the proteins in the cells of a tissue, and this process is coincident with the death of the cells. Such a form of treatment would appear, at first sight, to have numerous applications; but it must be remembered that the dead and injured cells have to be removed from the body, and this process is one of risk when the necrosed mass is at all large. The scope of application is further limited by the difficulty of restricting the distribution of heat to those areas mapped out for destruction.

The present issue of the *Journal* contains an instructive paper by Dr. W. Kent Hughes on the penetration of heat obtained from the passage from a current with a high frequency oscillation. By the use of such currents electrolytic effects in the tissues and fluids of the body are eliminated, while those effects due to the heating of tissues by the current remain. The thermic action can be limited by the size of the active electrode and by the amount of current passed through the tissues. When the current density is steadily increased from zero, a considerable measure of control is maintained over the process. This control is further favoured by using a large indifferent with a small active electrode. The pain produced during the action is small when the area coagulated is very limited, but, with the use of more powerful currents, the pain is such that general anæsthesia is needed.

Dr. Kent Hughes describes the practical methods of using diathermic currents, and relates how these currents have been used to remove nævi, senile warts, papillomata of the bladder and larynx and a fibroma of the naso-pharynx. There appears to be little doubt that this method, in common with other means for heating tissues, has a distinct and legitimate use in surgical practice. Further experience with these processes is needed to indicate more clearly the conditions in which their employment is beneficial. It may be possible to extend the use of diathermy to a number of other states in which the localized destruction of a pathological lesion is desired. These methods have been advocated for the treatment of malignant growths, and, though it is somewhat early to discuss the results that have been obtained, they do not offer much hope in this direction. In the palliative treatment of inoperable cancer they may have a sphere of utility.

THE EDUCATION OF THE DEAF.

Modern communities recognize their obligations to those members who are unfitted by reason of defects to look after themselves. The deaf, the mute, the blind and the feeble-minded require the protection of the rest of the people. Those who have from birth or childhood suffered from physical or mental disabilities have a special claim on the charity and consideration of mankind. Due attention should be paid to the provision for them of as large a share as possible of the social, intellectual and æsthetic pleasures enjoyed by their fellows.

Mr. Earlam, Superintendent of the New South Wales Institute for the Blind, Deaf and Dumb has drawn the notice of the medical profession of that State to some aspects of the care of the deaf which are of universal application. Those who are born deaf are devoid of the power of speech. They remain unaware of the existence of language, and have no idea of the purpose of speech. Cut off from the usual means of communication with others, they develope bodily but remain stunted in the mentality of infancy. Children who have become stone deaf in their early childhood usually lose their speech and become deaf-mutes. The labours of those who have sought to ameliorate the conditions of existence of the deaf have proved that it is possible to establish a satisfactory measure of intercourse between the deaf and those around, and to diminish greatly the effects of the handicap of this infirmity.

The education of the deaf aims at the cultivation of the habit of language. In the oral method of in-

struction, this object is accomplished by developing the use of speech in association with proficiency in lip-reading. In the manual method the same object is attained by the use of an alphabet of signs, with which each word is spelled. In the case of children, the degree of success ultimately obtained is largely dependent on the age at which instruction is begun. The evolution of the deaf child is bound up with its education, more than is the case with the hearing child. Without education, the deaf child remains without any means of exact expression. Many educationalists, who have had opportunities of observing what is needed by deaf children, claim that, on this account, this education of deaf children should never be neglected. It is held that attendance at school should be made compulsory for these children. It is urged that the State which makes such excellent provision for the secular education of the hearing child in Australia should see that there are proper facilities for the teaching of language to the deaf, and that all deaf children make use of these facilities. Too often the ignorance of the parents as to the necessity of this teaching and the desire to shelter the afflicted child in the home are hindrances to the future happiness of the deaf-mute. The members of the medical profession who come in contact with these unfortunate children can do much to foster a right attitude in the parents, and to direct the authorities of the States to the importance of this matter.

The establishment of day-schools for the mute and deaf children in the centres of Australian population has also been advocated by teachers of the deaf. Children interned in institutions lack many of the experiences which serve to build up the character of the hearing child, since these experiences are only found in the life of the home. The existence of day-schools would bring the benefits of education to those children whose parents fear the moral influence of the boarding-school. The hygienic dangers of the barrack system of housing children have been frequently pointed out by the student of pædiatrics. The combination of home-life and that parental control, which can never be replaced, with skilled teaching at the day-school would not fail of success.

Not only is better provision needed for the education of deaf children, but the adult deaf require facilities for the amelioration of their lot. Their path through life is made more easy if they are able to learn lip-reading and speech-reading. The wealthy can command the services of trained teachers, but those less well off have frequently to forego the advantage of a ready means of communicating with their fellow-men. Surely it should be easy to bring about the formation of classes in connexion with institutions in which this instruction could be given. Medical men might impress on those patients who consult them for deafness the advantages of acquiring the art of reading speech.

THE VENEREAL DISEASES BILL.

The medical profession in Victoria has need to exercise vigilance during the passage of the Venereal Diseases Bill through the two Houses of the State Legislature. The members of the Victorian Branch of the British Medical Association have discussed the whole question, and have signified their approval in general terms of the provisions contained in the Bill. A few apparently harmless amendments have, however, been introduced, and it is necessary to examine each word in order to determine the effect of each amendment. In some cases it would appear that a precedent might be established which would be against the interests of both the community and of the medical profession. It is not proposed at present to discuss the Bill in its entirety, but merely to call attention to two amendments which appear to be of importance. Clause 19, as it now stands, enacts that the managers of all hospitals receiving State support may be compelled to provide free of all charge accommodation for the examination and treatment of all patients suffering from venereal diseases. The definition of venereal disease in Clause 2, is "gonorrhœa, gonorrhœal ophthalmia, syphilis, soft chancre, venereal warts or venereal granuloma." It is therefore obvious that even late syphilitic manifestations, such as locomotor ataxy or general paralysis of the insane, would be included in the section under discussion. It will be noted that the conditions governing the admission of patients to a hospital are ignored, and that the managers of hospitals may be called upon to provide gratuitous treatment of venereal disease even to a person of means. It is probable that the provisions of the Charities Act would overrule the clause, but by subsection (2) the Treasurer of Victoria may withhold the whole or any portion of the subsidy, should the managers refuse to admit and treat a person who did not belong to what is usually known as "the hospital class." It is desirable that the clause be so amended that it would apply only to those who are eligible for admission to a hospital.

Attention should also be drawn to the elision of the word "destitute" in sub-section (g) of Clause 21. This clause empowers the Governor-in-Council

to make regulations for, or with respect to, various matters. Sub-section (g) reads as follows:—

> The remuneration of private medical practitioners for the examination or treatment of destitute persons pursuant to this part of this Act;

The word "destitute" was unfortunate, and we admit frankly that it is too sweeping. It is possible that had the word "indigent" been used in its stead no objection would have been taken to the sub-clause. But the deletion of the word gives the Governor-in-Council power to fix fees payable by patients to doctors in every class of practice. The measure aims at the proper treatment of venereal disease, and since this treatment is compulsory it becomes necessary to regulate the amount chargeable to persons of small means. This clause we presume will operate only when institutional treatment is not available. The removal of the word therefore alters the significance of the sub-clause, and has no actual bearing on the special subject of the legislation. The insertion of the word "indigent" would suffice to remove any disability in which a poor person might find himself when required to subject himself to treatment.

CONFERENCE OF SANITARY INSPECTORS.

The conference of sanitary inspectors held recently in Sydney, New South Wales, discussed a number of questions in practical hygiene. The sanitary inspector has the arduous task of drawing attention to matters that require alterations and the expenditure of money, while he is in the pay and under the control of the local authorities. He must exercise a large amount of tact if he is to fulfill his duty to the community. He deserves the support and encouragement of all who have at heart the furtherance of better hygienic conditions in Australia.

The conference has approved of a series of recommendations to be forwarded to different health authorities in reference to subjects that might be dealt with by regulations under the present Acts controlling public health. It has been considered desirable that troughs and other utensils used in bakeries or other food factories be capable of being moved about for the purpose of cleaning the floors. The presence of bits of sour dough on the floors tends to lead to infection of the newly-made doughs. It is thought necessary that all shops disposing of cooked and uncooked fish have floors impervious to wet and grease, and that walls be protected in a similar way, and be capable of being washed with boiling water. Conference has approved of a recommendation that a regulation be made under the Pure Foods Act for the periodical testing of dairy herds with the diagnostic agent known as tuberculin.

It has been agreed to ask the Government to vest the inspection of public halls and theatres, so that these may be cleansed and disinfected in a sanitary manner. At present this duty is carried out by the police.

The Government has also been asked to appoint three port sanitary inspectors, to examine periodically the sanitary conditions existing at wharfs, stores, bonds and on all vessels in port, including passenger ferries plying in the waters of Port Jackson. This matter is one that must receive the support of every medical man who travels around the harbour and who visits the conveniences at the suburban wharfs. It has been decided to seek for power to inspect all eating-houses, refreshment-rooms and restaurants in the metropolitan area and in tourist resorts. The opinion has likewise been expressed in regard to the supervision of hairdressers' establishments and saloons.

The conference has asked the City Council to provide conveniences for women on the same scale as provided for men. Members of the conference thought that the needs of women had been shamefully neglected in this matter.

Enough has been said to show that the conference devotes its attention to matters on which it is well fitted to offer advice. These annual meetings must be of great benefit to those that attend them. The aldermen, who at times grudgingly grant their officer leave for a week's holiday in the metropolis, may rest assured that the time is well spent in the accumulation of wider experience and in obtaining information useful to the officer in the discharge of his duties.

THE TRANSPLANTATION OF DUCTLESS GLANDS.

The doctrine of internal secretion has become engrafted in the mind of the physician. He sees in many phenomena the influence of excess or deficiency of some powerful substance that controls the activity of some organ's functions or regulates the growth of the organism as a whole. The physiological chemist searches the extracts and juices from tissues for substances of a less complex nature than the proteins which are usually associated with the vital phenomena of tissues. The physiologist puts forward the idea that the reactions of the protoplasm are accelerated or retarded by the effects of these autocoids, which resemble in some characters the alkaloids elaborated in the factory of the plant cell.

Even if some doubts arise as to the stability of the structure so plausibly put together, the idea of the internal secretion is a potent stimulus to research. It incites men to try new things, to make new experiments and to gain more knowledge.

A deficiency in the internal secretions of the ductless glands has been thought by many to account for certain groups of symptoms and for some diseases. Myxœdema, cretinism, Addison's disease may be cited as examples. Others go further, and ascribe some changes occurring in the body to the internal secretions of the sexual glands.

In reference to this subject a series of experiments have been completed on transplantation of the ovaries by O. T. Manley and D. Marine.[1] These investigators have transplanted ovarian tissue in rabbits, after having studied the grafting of the spleen, thyroid glands and suprarenal capsules. They distinguish between homo-transplantations into animals of the same species and auto-transplantations into the same animal. They find that auto-grafts in-

[1] *Journ, Amer, Med, Association*, July 22, 1916,

variably "take" and "grow," while homo-grafts are frequently absorbed and undergo changes in structure, even if they "take." They have not yet succeeded in finding what conditions determine the success of the homo-graft which is sometimes noted.

TOXICOLOGY OF THE DAFFODIL.

The cultivation of daffodils has long been practised by horticulturists. The amateur gardener adorns his plots with these graceful *Amaryllidae*. The poisonous character of this plant has been observed by toxicologists, though physicians have paid little attention to the matter. The gatherers of these flowers in the Scilly Islands suffer from an irritating eruption on their hands, which has been attributed to the juice from the stems of the daffodil and the narcissus. A recent paper[1] directs our notice to cases of accidental poisoning by the bulbs. An ignorant cook prepared a soup from the bulbs in place of onions, with the result that those eating the soup suffered from nausea, vomiting and diarrhœa. The discussion on the paper led to reference to other cases of poisoning attributed to misuse of the bulb.

In the earlier stages of growth the bulb contains alkaloidal substances allied to hyoscyamine. These bodies produce dryness of the mouth, check cutaneous excretion, dilate the pupil and accelerate the pulse. After flowering, the alkaloid extract causes copious salivation, induces sweating, contracts the pupil and gives rise to attacks of syncope. The wide distribution of the bulb renders it possible that poisonings of a mysterious nature may be due to the daffodil.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

A monthly meeting of the Senate of the University was held at University Chambers, Phillip Street, Sydney, on September 4, 1915.

The degree of Ch.M. was conferred upon Mr. Henry Absalom Ridler.

On the recommendation of the Engineering Building Committee, Mr. W. E. Pike, B.E., was awarded a Walter and Eliza Hall Engineering Fellowship.

The report of the Faculty of Arts, proposing amended by-laws in regard to the degrees of Bachelor of Economics and Master of Economics was adopted as follows:—

By-law Chapter XVI. (*b.*) Proposed amended By-law, Section 1.

In the Department of Economics and Commerce there shall be granted the degree of Bachelor of Economics (B.Ec.) and Master of Economics (M.Ec.).

New By-laws, Section 7. Existing By-law Section 7 to be numbered 11.

New Section 7. There shall be a yearly examination for the degree of Master of Economics during Lent Term.

New Section 8. Every candidate for this degree must have previously obtained the degree of Bachelor of Economics, and two years must have elapsed since the time of examination for such degree. He will also be required to furnish evidence of having completed his twenty-first year.

New Section 9. The fee for the degree of Master of Economics shall be £5. No candidate shall be admitted to the examination unless he shall have previously paid this fee to the Registrar. If a candidate fails to pass the examination the fee shall not be returned to him. For any re-examination for such degree he shall pay a fee of £2.

New Section 10. Candidates for the degree of Master of Economics shall elect to be examined in (*i.*) Economics; (*ii.*) a special subject.

They shall also be required to present, and, if called upon to defend, a thesis not already presented as a thesis for any degree, embodying the results of an original investigation in some economic subject.

Proposed Regulations: Degree of Master of Economics (M.Ec.).

1. Candidates for the degree of Master of Economics will be required to submit themselves to examination on
   (*a*) the general history and literature of Economics, including Economic History;
   (*b*) a portion of theoretical or applied economics (including Industrial Law, Problems of Accountancy and Business Administration, Public Administration) or Economic History, selected for intensive study and research. The choice of the field for such study must be approved by the Professor of Economics.
2. Candidates will also be required to carry out an original research on some economic subject, and to present the result in a thesis which must reach the standard of attainment and method sufficiently high to warrant publication. The choice of subject must be approved by the Professor of Economics.
3. Candidates for the degree of Master of Economics who are or have been candidates for the degree of Master of Arts in the School of Logic, Mental, Moral and Political Philosophy will be required to submit themselves for examination and to present a thesis on subjects other than those taken for the degree of Master of Arts, and conversely. Such subjects must be approved by the Professor.

THE HEALTH OF BROKEN HILL.

The Medical Officer of Health of Broken Hill has issued a report dealing with the health of the municipality for the quarter ending June 30, 1916. For the purposes of this report, the population is taken at 28,000. There were 236 births. This is equivalent to an annual birth-rate of 33.71 per 1,000 of population. In the corresponding period of 1915 the birth-rate was equivalent to an annual rate of 39.46.

There were 116 deaths during the quarter, including 22 of infants under one year of age. The death-rate was equivalent to an annual death-rate of 16.57. This compares favourably with the death-rate of the second quarter of 1915, which was equivalent to an annual death-rate of 18.23. The infantile death-rate was 93.22 per 1,000 births. In the corresponding quarter of 1914 it was 123.56 and 70.94 in 1915. Dr. Bartley gives the following information in regard to the chief causes of death. The number of cases are attached and the numbers in brackets indicate the figures for the corresponding quarter of 1915: Gastro-intestinal diseases, 10 (8); enteric fever, 8 (2); diphtheria, 6 (5); cerebro-spinal meningitis, 2 (0); morbilli, 7 (0); pneumonia, 5 (5); pulmonary tuberculosis, 3 (5); nephritis, 4 (10); cancer, 8 (6); cerebral diseases, 6; cardiac diseases, 3 (13); accidents, 7 (0); senility, 11 (6); congenital conditions, 4 (5); and prematurity, 6 (5).

The number of cases of the various notifiable diseases reported during the second quarter of 1914, 1915 and 1916 are also given. There were 181, 41 and 48 cases of enteric fever respectively. The incidence of diphtheria has remained fairly constant, having been 183, 163, 198 in the three periods. There were 21 cases of scarlatina in the second quarter of both 1914 and 1915, and 17 in the second quarter of 1916. Epidemic cerebro-spinal meningitis was not notifiable in the corresponding period of 1915. There were 2 cases in the quarter under review.

Dr. Bartley concludes his report by directing the attention of the local authority to the fact that they were still depositing the contents of the urinary cesspits in the centre of the city, and that they were not complying with the requirements of the Board of Health in having the whole of the sanitary service a sealed one. Both these matters, as they stood, would increase ill-health and the death-rate,

[1] *Pharmaceutical Journal*, Vol. XCVI., p. 367, 1916.

Abstracts from Current Medical Literature.

THERAPEUTICS.

(127) Poisoning by Corrosive Sublimate.

D. S. Lewis and T. M. Rivers have made a careful study of the condition of mercurial poisoning (*Bulletin of the Johns Hopkins Hospital*, July, 1916). The patient was a married woman, aged 20 years, who had been using bichloride douches for some time in the treatment of leucorrhœa. Twenty-four hours before admission she had swallowed a tabloid of mercuric chloride in mistake for a headache tablet. Vomiting had started in thirty minutes, and had persisted until her admission. The vomit had been at first blue. Later it became colourless. There were copious watery stools, but no melæna. Abdominal pain had been absent. Cramps were felt in the legs. She passed urine just before admission to hospital. During her sojourn in hospital she vomited for fourteen days. Between the third and tenth days the vomit contained blood. Diarrhœa was not marked, but the stools were black from blood for 21 days. Anuria commenced eighteen hours after taking the tabloid, and it lasted for six days. On the eighth day the anuria ceased, and was followed by polyuria for some days. During the anuric period the patient became drowsy, but did not lose consciousness. No symptoms of uræmia were noted. The temperature rose to 100° F. The pulse varied in rate, but did not rise above 110. On the twenty-seventh day the patient was discharged well. She has been seen on several occasions since the accident, and enjoys apparently perfect health. The treatment consisted of gastric lavage thrice daily during the first four days. During the first three days 250 c.cm. salt solution, containing 12 grams of sodium carbonate, were given every three hours. For the next 12 days, normal salt solution was administered by proctocylsis in amount of one litre daily. On the eighth day, 350 c.cm. of a 5% solution of glucose was given intravenously. On the ninth, tenth and eleventh days, 500 c.cm. of a 10% solution of glucose was given in the same way. Water was given freely by the mouth. It was returned by vomiting until the twelfth day. Sweat baths were given daily for fourteen days. The diet consisted of milk after the fourth day. Meat was excluded until the seventeenth day, after which date a full diet was permitted. During the treatment, careful chemical examinations have been made on the blood, on the urine and on the acid-base equilibrium of the body. The studies on the blood consisted of daily estimations of the non-protein nitrogen, of the urea-nitrogen and of the sodium chloride in the plasma. The figures showed a gradual increase in the amounts of non-protein nitrogen and urea nitrogen in the blood, which reached a maximum on the ninth day. At this time each 100 c.cm. blood contained over 10 mg. of each kind of nitrogen. On the eighteenth day these figures had fallen to under 20 mg. The chlorides showed a diminution until the sixteenth day. Albuminuria was present after the anuria ceased. It lasted until the twenty-fourth day. Chlorides were absent from the urine during the first week of urinary excretion. The total nitrogen excreted in the urine was increased for some days after the period of anuria. Polyuria was marked on the eleventh and twelfth days of the illness. The tension of carbon-dioxide in the alveolar air fell to 25 mm. Hg. during the period of anuria. It reached a normal figure of 39 mm. Hg. on the thirteenth day. Examinations with the phthalein test showed that the excretion of urine proceeded at a normal rate twelve days after the cessation of anuria. The authors emphasize the need of prolonged and vigorous treatment in all cases of mercurial poisoning. They claim to have seen moribund patients revive.

(128) Galyl and Neo-salvarsan.

S. F. Dudley has substituted galyl for neo-salvarsan in the routine treatment for syphilis at the Royal Naval Hospital, Chatham, since November, 1915 (*Journ. Royal Naval Med. Service*, July, 1916). Roughly 1,500 intravenous injections of galyl have been given since that date. The author compares the effects of these injections with those observed after the administration of neo-salvarsan. The injections of both substances have been given in accordance with the instructions of the Admiralty. When a patient has been found suffering from syphilis he receives an intravenous injection of the arsenical preparation. The injection is repeated twice, at monthly intervals. Between the injections of the arsenical drug, three injections of one grain each of mercury are employed. The patients only come into hospital to receive the arsenical injections so that they come under observation three times, at the start of treatment, one month later and two months after the commencement of the treatment. On each occasion the blood of the patient is tested by the Wassermann technique. The author compares the two arsenical preparations in regard to (1) the reaction after injection, (2) the effect of the Wassermann test, (3) the influence on the *Treponema pallida* found in the lesions, (4) the clinical results, and (5) the chemical composition. When comparing the reactions produced by the injections of the two substances, the author paid attention to the highest temperature observed on a four-hourly chart, to the presence of headaches and the occurrence of vomiting. With first injections, the temperature is less elevated with galyl, vomiting is equally frequent with both drugs, while headache occurs more frequently after galyl. The reactions after second and third injections are less marked, and occur to practically an equal extent with both drugs. The results of blood tests on 150 cases of syphilis, treated with neo-salvarsan, are compared with the results from the same number of cases treated with galyl. The results with salvarsan are better than those with galyl. Whereas 25% of the cases showed a reaction after three injections of galyl, only 15% of the cases yielded a reaction after neo-salvarsan. The effect of both drugs has been tested on the number of spirochaetes observed, under the microscope, in material removed from primary sores. Neo-salvarsan seemed to have a greater germicidal power than galyl. The clinical results obtained with 0.4 gm. galyl appear to be as good as those obtained with neo-salvarsan. Chancres and ulcerated lesions heal rapidly and rashes fade. Iritis and other eye conditions respond to treatment. The author, however, confesses that rashes of the indurated papular type seem more resistant to galyl than they did to neo-salvarsan. He concludes that galyl is a safe and useful substitute for neo-salvarsan, but, owing to its smaller content in arsenic, it should be used more frequently than the older drug to obtain its full effect.

(129) The Laxative Action of White Mustard Seed.

E. C. van Leersum contributes some observations to the pharmacology of the laxative action of white mustard seed (*Journ. of Pharmacology and Exper. Therapeutics*, June, 1916). He shows that this action is not due to the mucilage present, which is similar to that in linseed, but to small amounts of sulphuretted hydrogen, which are liberated by fermentative activity from the interesting glucoside, sinalbin. Sinalbin is split up by myrosin into paraoxybenzol-mustard oil, glucose and sinapin sulphate. Its thiocyanic group can, however, yield sulphuretted hydrogen and carbon dixoide by a different decomposition. The author proved the correctness of his surmise by measuring the amounts of hydrogen sulphide and carbonic acid gas formed. He has also shown that small amounts of sulphuretted hydrogen greatly increase the force of the peristaltic movements of the intestines. He points out that the rare cases of poisoning, following the use of white mustard seed, and distinguished by the characteristic cyanosis, are due to the formation of sulphhæmoglobin.

(130) Standardization of Digitalis.

L. G. Rowntree and D. I. Macht have tested a number of preparations of infusion of digitalis (*Journ. Amer. Med. Association*, March, 1916). They have employed the method of injecting the infusion slowly into the femoral vein of a cat until the heart ceases in systole. Three determinations have been made on each preparation and the average amount used is regarded as the lethal dose. They find wide variations in the strengths of different preparations. Their figures show variations from 6.6 c.cm. to 19 c.cm. per kilogram. They consider that infusions should be made from standardized leaves to ensure more uniformly potent galenicals.

UROLOGY.

(131) Syphilis of the Bladder.

James Pedersen calls attention to a thesis published by Durœux in 1913 on syphilitic disease of the bladder (*Medical Record*, August 5, 1916). Secondary syphilis occasionally involves the bladder and gives rise to simple hyperæmia, simple ulcer and papillary growths. It is stated that the syphilitic nature of these lesions cannot be distinguished cystoscopically. The tertiary lesion is equally difficult to diagnose by inspection. The author gives a short summary of the recorded cases collected and discussed by Durœux. He appends the clinical histories of five cases of his own. The first case was characterized by frequency of painless micturition and hæmaturia, and the diagnosis was confirmed by the effect of anti-syphilitic treatment. The second case was one of long-standing, chronic cystitis, with infiltration of the right anterior wall and an open lesion posteriorly. In the third case there was great frequency of micturition and gross hæmaturia. The vesical mucous membrane was generally thickened, and areas of congestion and ulceration were noted. The author admits some doubt as to the reliability of the diagnosis in the fourth and fifth cases. He concludes that syphilis of the bladder is an entity often overlooked or not recognized. The signs of syphilis of the bladder are variable, and only one, *viz.*, punctate hyperæmia in multiple spots known as "the macule," is pathognomonic. When the affection is suspected, recognized and treated, the prognosis appears to be good.

(132) Œdema of the Urethra and Bladder.

J. Welfield (*Urologic and Cutaneous Review*, July, 1916) discusses the manifestations and significance of œdema of the bladder and urethra. Œdema of the external urethral orifice is characterized by eversion of the mucosa. The degree of this eversion is in direct proportion to the violence of the infection. A very common form of œdema of the urethra is that occurring around a stricture. It may be caused by instrumentation or as the result of venereal or alcoholic excesses. It may be necessary in these cases to leave a permanent catheter *in situ*. Œdema of the posterior part of the urethra may occur during the sub-acute stage of gonorrhœa. This form leads to the loss of power of erection. Œdema of the bladder may be general or localized. In general œdema the mucosa is seen to have lost its normal gloss, and to be disposed in thick, clumsy folds. In the so-called incarceration of the bladder during pregnancy circulatory changes may result in a generalized œdema. Localized œdema produces a disappearance of the blood vessels. In extreme cases a solitary ulcer may be seen in the centre of the œdematous area. The clinical symptoms include tenesmus, blood-stained urine and the inclusion of broken-down bladder tissue in the urine. In bullous œdema of the bladder an aggregation of transparent vesicles of about the size of a pea is detected. Whitish flakes are seen moving to and fro in the distending fluid. These flakes are the torn epithelium of burst vesicles. A localized œdema in the neighbourhood of the ureteral orifice is diagnostic of some pathological change in the kidney. Œdema of the prostate may be mistaken for hypertrophy. The diagnosis can usually be made by means of palpation and from the history of the case. In some cases it is not possible to differentiate the two conditions until the bladder is opened. As soon as the bladder wall is incised the surgeon sees the surprising phenomenon of a prostatic tumour, which is protruding into the bladder, melt away.

(133) Oxygen in Cystography and Pyelography.

A. Granger (*American Journ. of Roentgen.*, July, 1916(advocates the use of oxygen for the purpose of obtaining clear radiographic pictures of the bladder and renal pelvis. Having determined that gas was better than fluid for distending the bladder, washed and filtered air was first employed, and as the results were unsatisfactory, oxygen was substituted. It was found that even irritable bladders tolerated oxygen better than any other substance, and that no harm was inflicted on the tissues. The author mentions a case in which the bladder was distended sufficiently long to enable a cystogram to be prepared without the production of pain, notwithstanding the fact that the bladder was extremely irritable and painful. When oxygen is used, calculi are depicted with remarkable clearness, and growths of the bladder, diverticula and other deformities are easily diagnosed. The technique is as follows: The urine is withdrawn through a catheter and the bladder is distended by allowing oxygen to flow in slowly through the catheter until the pressure is about one pound. When the bladder is full the flow is interrupted and is subsequently resumed at intervals until an intravesical pressure of two pounds is registered. The catheter is then removed. The patient is placed in a prone position, with elevated thighs. The radiogram is taken from behind, forwards and upwards, through the middle of the lower half of the sacrum. The author has more recently extended the use of oxygen to pyelography. After some experimentation, he determined on the following technique, which yielded satisfactory results. Ureteral catheters are inserted in the usual way, and the cystoscope removed without disturbing the catheters. The bladder is then filled with oxygen through a very small urethral catheter, which is also removed. The oxygen apparatus is then attached to the ureteral catheters, and while oxygen is flowing into the renal pelves the pyelogram is taken. It is necessary to maintain a slightly higher pressure of gas in the bladder than in the pelves and ureters. No discomfort is experienced, either during the procedure or after it, and the gas is easily expelled.

(134) Pelvic Lavage for Pyelitis.

H. L. Kretschmer and F. W. Gaarde publish the results obtained by them by pelvic lavage in a series of cases of chronic pyelitis due to the colon bacillus (*Journ. Amer. Med. Assoc.*, June 24, 1916). With the exception of certain cases of pyelitis of pregnancy, pelvic lavage was not employed in acute pyelitis. They include under the category of chronic pyelitis, infections secondary to those of the renal parenchyma. The requirements of cure as a result of the treatment were: (1) that the urine was free from pus, and (2) that samples obtained by ureteral catheterization were sterile. Little difficulty appears to have been experienced in regard to the control of the first. The second requirement, however, was more difficult of proof. Repeated cultures were frequently required. The routine treatment employed was washing out with a 1% of silver nitrate. No special advantage was gained by increasing the strength of the solution. The amount injected varied between 5 and 10 c.cm. In addition to the lavage, autogenous vaccines were used in about one-half of the patients. Drugs were employed on the following plan: During the first week sodium bicarbonate is given. During the second week the urine is rendered acid by means of acid sodium phosphate, and 2 to 4.5 grammes of hexamethylenamin are given. The two treatments are alternated during the whole course. Pelvic lavage was carried out in 21 cases, but only in 14 was it possible to ascertain whether a bacteriological cure had been achieved. They claim complete cure in 11 cases, which is a more satisfactory result than that obtained by means of other forms of treatment. In some instances good results were obtained after several month of internal treatment. When patients failed to respond to lavage the authors suspected that they were dealing with a condition other than a simple pyelitis, such as tuberculosis, calculus or stricture of the ureter.

(135) Ectopia of the Bladder.

J. Leland Boogher (*Urologic and Cutaneous Review*, July, 1916) finds that the results of operative treatment for exstrophy of the bladder have only been partly satisfactory in his hands. This congenital abnormality is rare. It is variously estimated as occurring once in 9,000 infants by Sneed, and once in 50,000 infants by Neudorfer. The life of the patient is rendered intolerable to himself and objectionable to others. Flap operations have not yielded good results. It appears that Gerody's method at times yields passable results. Maydl's operation for the implantation of the ureters into the bowel has not been uniformly successful; but some good results have been recorded. It appears that the chief source of danger in the implantation method is due to leakage into the peritoneal cavity. The author considers that, as long as the operation is conducted transperitoneally, a high mortality will ensue. He advocates extraperitoneal implantation.

British Medical Association News.

SCIENTIFIC.

A meeting of the New South Wales Branch of the British Medical Association was held in the B.M.A. Library, 30-34 Elizabeth Street, Sydney, on September 29, 1916. Dr. Sinclair, President of the Branch, was in the chair.

The President declared that Drs. G. H. Abbott and D. Thomas had been elected the representatives of the New South Wales Branch on the Federal Council of the British Medical Association in Australia.

Mr. Earlam, Superintendent of the New South Wales Institute of the Deaf, Dumb and Blind, gave a demonstration of his methods of teaching deaf children the use of speech and the knowledge of language. He said that he was happy to have the opportunity of addressing a meeting of the medical profession. The well-being of the deaf was specially associated with the goodwill of two classes in the community, medical men and the teachers of these unfortunate people. He mentioned that Dr. Kerr Love had asserted that the interest of the medical profession in the deaf was *post mortem*, when an examination could be made of the condition of the temporal bone. Dr. Kerr Love thought that deaf children could be classified into groups on a clinical basis. The groups suggested were the semi-deaf, the semi-mute, the totally deaf and dumb with normal mentality, and the deaf mutes who were feeble-minded. Dr. Kerr Love believed that better results could be obtained if each of these classes of children had different methods of education. He regarded the grouping together of all types of deaf children as the most important weakness in the present methods of education.

It was necessary to compare the deaf children with the hearing child of the corresponding age. The hearing child had speech and language. He could produce a word language. He came to school with a sufficient vocabulary for the purposes of daily life, and with a speech that was automatic. The deaf child had no knowledge of the meaning of speech, and no conception of a word-language. The intellectual development was that of infancy. He wished to impress upon them that the uneducated deaf child had no means of expressing thought in exact language. The deaf child could use signs and gestures; but these had only a vague significance as compared with exact words. Signs must be regarded as a primitive means of intercourse. They did not form a natural mode of conveying the thoughts. Speech was natural to the deaf child; but the child did not possess any conception of the form of language.

The development of the habit of language was the main object of educating the deaf. He employed two separate methods of instruction. The oral method of teaching aimed at developing speech. The deaf were taught to read and to express their ideas in spoken language. The child was made to associate the written word, the spoken word and the object and to reproduce with his lips, tongue and throat the sound of speech. The manual method of teaching aimed at teaching the child a knowledge of language without speech, and at developing an acquaintance of language by writing and spelling. He might point out that teachers of the oral method discourage the use of signs.

Mr. Earlam had brought with him a number of children, on whom he demonstrated his method. These children varied in age from seven to fourteen years, and had received from 18 months to seven years of training. He had not brought with him any of the very young children who were received at the Institute for educational purposes. In teaching children to speak the teacher tried to reproduce the method by which the hearing children learned to speak. He always employed in the first place the oral method of teaching. If the child was unable to respond to these methods, he used the manual form of teaching.

In the oral method the children were first taught the fundamental sounds. He endeavoured to make the children acquainted with the explosive and continuous consonantal sound. The child was made acquainted with the sound by placing its hands on the speaker's throat to note the movements, by feeling the breath expelled from the lips, and by observing with the eyes the position of the lips. The sound *p(er)* was first taught. This sound was formed with the lips, and was not vocalized. The next sound used was *t(er)*, formed just within the mouth and with the tip of the tongue and was not vocalized. The sound *k(er)*, formed still further back, was conveyed to the child by feeling the throat, as the visible indications of its formation could no longer be seen. When the children could make these unvocalized sounds they proceeded to learn the vocalized consonants—*b, d, g,* and *j*. They were next taught the nasal explosive sounds. Each sound formed from the same position was taught in three ranges—unvocalized, vocalized and nasal—thus, *p(er)*, *b(er)*, *th(er)*. Along with these explosive sounds the continuous sounds, *f, s, v, z, l,* and *r*, were taught in the same way in unvocalized, vocalized and nasal ranges. The vowel sounds were taught at the same time The children commenced with *ar* and *oo*, formed by the shape of the mouth. They followed with *er* and *aw*, also dependent on the size of the mouth, then with *ae, i, ee*, formed with the tongue and lips, and with *o* and *u*, made with the tongue. The diphthongs *ow, ay, igh, oa, ew, oy* were introduced to the children as two sounds thus, *ow* was equivalent to *ar*, followed by *oo*.

He exhibited three children who were acquainted with the sounds *ar, oo, p(er)*, *f(ir)*, and *th(er)*. The children placed their hands on the chest to note the vibration, looked at the sign on the blackboard, observed the shape of the lips and felt the expulsion of air from the mouth. As soon as these sounds were known they were combined to *par, arp, poof*. Along with speech the child learned of language. The object was shown to the child, and the word written on the blackboard. The children were first taught the names of simple objects, then the names of the children in the class, then the names of the numbers up to 5. Mr. Earlam proceeded to show three children who had advanced further and built up the first beginnings of a vocabulary. These three children had been at school for 18 months. They could produce such sounds as *tooth, path, saw, boot*. The children were taught not only to associate their speech with the object and with the written name, but also to represent the objects by drawing. Mr. Earlam thought that it was of great advantage to associate drawing with the school work. It provided the deaf with a means of expression before they had acquired the ordinary mode of expression by language. As it was not possible to use grammar in the early stages of teaching, since grammar was analytical and the teaching must be synthetic, he used a scheme of headings, *e.g.*, what? (things), who? (persons), how many? (number). As soon as the children became acquainted with the heading, and thus gained vocabulary, they were taught the construction of language by phrasing, thus, Who did what? The classification under headings enabled the teacher to correct errors made by the deaf. Peculiarities were discovered. In this way the teacher built up a knowledge of the structure of elementary language. He talked freely to the children, even if they did not understand what he said, since he wished them to know that speech was the proper means of communicating together. He reached ahead all the time, so that the children made continuous progress.

He then exhibited some children who had received three years of training. They had mastered all the elementary sounds, and were able to speak in simple sentences, *e.g.*, What is that? That is a boot. What colour is it? It is black. What is it made of? It is made of leather. The children became acquainted with these sentences by observing the lips and throat of their teacher. Owing to the late hour, Mr. Earlam omitted to demonstrate children in the next two stages, and he passed on to demonstrate the knowledge of three girls who had received six years of training. One of these girls had been born deaf, the second had been deaf since an attack of scarlet fever when four years old, while the third was a semi-mute with deficient mentality. These girls thus represented three separate types of deaf children, yet he had to teach them in the same class, and by the same methods. These children responded readily to questions, and were able to converse on a considerable variety of topics.

Two boys were shown who had been taught by silent manual methods. These boys did not use speech; but they developed language at the same rate as those taught by the oral method. They learned the signs for the letters. They were made to learn of words by spelling the letters alphabetically, and not by using phonetic signs.

Dr. A. J. Brady said that it was most interesting to see

these methods and to note the patience exercised in carrying them out. The results were brilliant, as the children were intelligent, could read the lips well and could answer briskly. Urbantchitsch claimed that hearing could be developed by exercise. He believed that it was possible to arouse the silent auditory nerve to activity, and that persons who were quite deaf could be made to hear. Pollitzer threw cold water on this idea. Dr. Brady believed that the prevention of deaf mutism was more important to medical men than its treatment. The condition was congenital or acquired. In congenital cases there was no means of prevention, except, perhaps, in forbidding consanguineous marriages, which conduced to it. In the acquired form, the physician could do more. Deaf mutism was most common after scarlatina and diphtheria; but it was also observed after meningitis. If cases of middle ear trouble, due to scarlatina, were treated properly before destruction of the labyrinth, deafness would be less frequent. The more extensive use of antitoxin would diminish deafness due to diphtheria. He would remind them that destructive lesions of the middle ear could be arrested before complete loss of the auditory apparatus. If adenoids were removed catarrh of the naso-pharynx would be less frequent, and there would be less extension to the middle ear. He thought that medical men should awaken to the possibility of diminishing the incidence of acquired deafness.

Dr. W. A. Dunn thought that Dr. Brady might have included measles and small-pox among those diseases which led to deafness. He had recently seen some cases of meningitis with damage to the middle ear on one side. He had also noted the association of deafness with congenital syphilis. Deaf mutism might occur if the hearing was lost before the attainment of fifteen years of age. With regard to the factor of heredity, it had been observed that deaf mutism was concurrent with eye lesions, such as corneal infection, and *retinitis pigmentosa*, and with hæmophilia. The treatment of cases of diseases of the middle ear, secondary to measles and scarlatina, fell into the province of the general practitioner. He would remind them that the membrane should be punctured early, and that the physician should not wait for the abscess to burst externally. He believed that a school was required for teaching adults to speak. There were teachers for private cases, but not for those who were unable to pay fees. Children who could hear a little would probably be much assisted by the use of instruments.

Dr. W. F. Litchfield had hoped for a larger attendance; but the weather had been unfavourable. They were all indebted to Mr. Earlam for his remarkable demonstration. He hoped the demonstration might be repeated. Deafness was not of great interest clinically. Cases could be diagnosed; but the patients were not improved by treatment. Dr. Chisholm had said, 20 years previously, that there were two kinds of deafness. One type could be cured by syringing, but the other could not. It was their duty to tell parents that deaf children should be properly instructed. There should be no delay in commencing treatment. The child should be taken to school early. The best age for acquiring speech was from the third to the seventh year. If that period had passed it became more difficult to train the child to speak. He advocated the use of day-schools in educating the deaf. The Institution in Sydney was a boarding-school. He asked whether it was not possible to have day-schools, and whether any difficulties from the point of view of the teacher arose from the children returning home to hear different language. He classified deaf children into the totally deaf, partially deaf and the deaf and feeble-minded. It was said that, if children lost their sense of hearing before being six years old, they were likely to become dumb. A child of three under his care in the Children's Hospital illustrated this fact. He would draw attention to one of Gee's aphorisms, that a child, aged four, who could not speak was deaf or idiotic or suffering from congenital aphasia. He had seen a case of word deafness in a child aged three years. The condition had not changed five years later.

Dr. R. B. Wade wished to emphasize the question of day teaching. He objected to the barrack system of housing children. Many parents refused to allow their children to become inmates of institutions. He asked whether it would not be advantageous for the children to read the lips and learn the speech of other people. He asked Mr. Earlam for an expression of opinion as to whether it would be advantageous for the profession to advocate day teaching.

Dr. A. J. Brady asked for permission to point out that many cases of deafness could be ameliorated by treatment. Trouble with the Eustachian tube, suppuration and polypi in the ear could be treated with great advantage to the patient. He instanced a case of a man who had been deaf for many years owing to the presence of a polyp. He had removed the polyp, when the tympanic membrane had healed, so that the patient could hear well. He had treated two cases by excision of the drum and ossicles for intolerable noises in the head. He begged them not to be too pessimistic with regard to the treatment of deafness.

Dr. Sinclair Gillies pointed out that expense was often a bar to treatment. He would like to know whether children should be sent at once for training when their hearing was lost.

Mr. Earlam, in reply, said that he had used instruments in children who were partially deaf, and that such children practised hearing exercises. Children almost always lost their speech when they lost their hearing. It was much easier to retain the speech if instruction was started as soon as it was recognized that the children were deaf. He thought that the provision of lessons in lip-reading and speech-reading for adults was an undoubted necessity. There was no adequate provision for teaching adults at present in Sydney. There were some private teachers; but he would remind them that deaf adults were often exploited by the charlatan. He thought that some provision for teaching adults should be made in association with institutions. This was done in Glasgow. He wished to say that he had recommended the formation of such classes.

Early education was more essential for deaf than for hearing children. He could not understand why attendance at school by the deaf and blind was not made compulsory. The State, which prided itself on its system of education, made no provision for educating either of these classes. Such education as could be obtained was the result of private philanthropy. Until attendance at school was made compulsory for the deaf and blind, many of these children would apply for education too late. With regard to residential or day-schools, he personally favoured the day system. He was aware of the difficulty in the home conditions. He would prefer deaf children to reside in the institute for two years, and then, if of normal mentality, become day scholars. In Denmark, children were admitted to a central school, where they were kept for 12 months. At the end of that time the amount of residual hearing and the degree of intelligence had been ascertained. The children were then drafted into separate schools for the semi-deaf, for the semi-mute, for children of bright intelligence but totally deaf, and for feeble-minded children.

Children in institutions missed many of the experiences of normal children, since these were only gathered in the home and not in the partial isolation of the institution.

Medical Societies.

(Affiliated with the British Medical Association.)

NORTH-EASTERN MEDICAL ASSOCIATION, NEW SOUTH WALES.

A General Meeting of the North-Eastern Medical Association was held at Bangalow on August 16, 1916, Dr. J. Coen, the President, in the chair.

The business of the meeting consisted of the consideration of certain letters that had been received. Some discussion took place on a letter received from Dr. R. H. Todd and enclosing a resolution of the Ethics Committee anent the resolution of the Association: "That, in the opinion of this meeting, it is inimical to the interest of members to allow periodical visiting to any centre at which the visiting practitioner does not reside, providing that nothing in this resolution shall prevent any member visiting any other centre in response to *bona fide* calls from patients not being attended by any other practitioner."

Dr. R. V. Graham moved the following motion: "That the resolution remain as originally worded, and that it shall apply to all members of this Association."

This was seconded by Dr. P. Corlis and carried.

During the discussion, it was pointed out that the Association merely desired to retain the privilege of considering each case on its merits.

In connexion with a letter from Dr. E. A. R. Bligh, Honorary Secretary of the Northern Suburbs Medical Association, with regard to the appointment to Commissions in the A.A.M.C. of medical practitioners, ineligible for membership of the British Medical Association, Dr. T. J. Henry moved: "That it is inadvisable to protest against the matter of military 'discipline.'"

Dr. F. L. Bignell seconded the motion, which was carried unanimously.

The Secretary was instructed to reply to a letter from Dr. R. H. Todd, asking whether the practice existed in their district for daughters (over 16) to receive attendance from medical officers at Lodge rates, although not members of the Lodge, that this Association had no knowledge of the existence of this practice, and was opposed to the principle.

Dr. T. J. Henry moved: "That the members of this Association are prepared to accept any previous members of a Friendly Society Lodge on his return from military duty without any re-examination, irrespective of his physical condition, provided that he was a member under the Common Form of Agreement."

This motion was seconded by Dr. F. L. Bignell and carried.

Dr. F. L. Bignell applied for leave of absence, owing to his departure on active service. This was granted, and the members wished him a speedy and safe return.

Dr. C. Franceschi moved a vote of condolence with the President (Dr. J. Coen) on the death of his brother, Major Frank Coen, while on active service. Dr. Henry seconded the motion, which was carried by all standing.

The next meeting was arranged for November 15, 1916, at Lismore.

ORGANIZATION OF THE MEDICAL PROFESSION.

We have received as we were going to press the following memorandum from the Director-General of Medical Services on the organization of the medical profession of Australia to meet requirements under war conditions:—

1. In placing the following memorandum before the medical profession, I would remind them that, under the Defence Act, medical men are, on the issue of any proclamation, liable to serve just as all male inhabitants of the Commonwealth, the only exception being that medical officers in a hospital cannot be called up for combatant service; but, of course, this is really of no importance, as it is not likely that any medical officer would be detailed for such service.

[In paragraphs 2 to 6 the Director-General states that he recognizes to the full the sacrifices which the members of the medical profession have made, but calls on them to take their duties seriously and to make such further sacrifices as may be necessary for preservation of the safety of the Empire. The scheme adopted is similar to that adopted in England.]

7. The alterations which it has been considered advisable to make in the British scheme have been rendered necessary by the great distances between the large centres in Australia.

8. A Federal Medical War Committee, as a final court of appeal, was found to be unworkable, and so any appeals from the District Medical Committee will be dealt with by a State Judge (instead of, as under the British scheme, by a Central Medical War Committee), but the recommendation of the District Medical Committee will be the guiding factor in the selection of medical officers for service.

9. By virtue of the compulsory provisions of the Defence Act, all medical men, married or single, will be under the same statutory obligation as civilians to serve in the Military Forces for the duration of the war, whenever the class to which they belong is called up, by proclamation, for service. It is realized, however, that the medical man is in a very special position in the following respects:—

(1) He is needed in the Army and Navy to render the same kind of service that he fulfils in civil life.

(2) Arrangements can be made in many cases to carry on his civil medical practice when he joins the force.

(3) This bringing about of an arrangement for carrying on his civil duties is often essential in the interests of the civil population, and a necessary element in determining which of the men shall be selected for the Australian Army Medical Services.

(4) The making of such arrangements must rest, of necessity, with the members of the medical profession.

10. For these reasons two special arrangements have been made, namely:—

(*a*) A special procedure as to questions of exemption of medical men from ordinary military service;

(*b*) Special procedure for selecting, and at the right time in each case the particular medical officer who can be best spared from civil work to serve as a medical officer in Australian Army Medical Service with the least injury to the requirements of the civil population and for retaining in their civil work those who are most needed there in the public interest.

11. Both these procedures can be made properly efficient only by means of a professional body, having full knowledge as to the attainments and qualifications of the men and special work in which they are engaged. It has, therefore, been decided that the questions whether a given medical man shall serve in the Army at home or oversea, or whether he is to continue his practice among the civil population, shall be decided by a local Exemption Court, on the recommendation of a Professional Committee. Before any Professional Committee can arrive at a wise decision on any given case, it must be in a position to arrive at reasonably accurate comparison of the situation in different areas, and as between different medical men as regards the existing supply of medical men, and the various types necessary for the civil population. In order to be able to make the necessary comparison equitably, it is necessary, in the first place, for the whole supply of medical men in all parts of the country to be carefully surveyed, not only on local detailed knowledge, but on a comparative basis also. It is, further, important, for the purposes of comparison and selection, that it shall have within the field of consideration the largest possible number of medical men, for, though many thus included will be over the age for medical military service, they can be brought into effective account by their taking practical part in the arrangement for carrying on the practices of men who can, in that event, but not otherwise, be spared for the Australian Army Medical Corps. This task of organized selection is one that requires for its proper performance the assistance of organizations for collecting details of local information in all parts of the State. It has been decided that a District Medical Committee be established in each military district.

12. Such Committee will consist of—

Principal Medical Officer, President.

Two representatives from the British Medical Association Branch of that District.

One medical representative from the University (only in districts where there is a Medical School in connexion with University).

2. Representatives of medical practitioners, resident in the military district (nominated by Commandant for the approval of the Military Board).

13. The functions of each District Committee involve the selection for service for, or recommendation for exemption from Australian Army Medical Corps service, of medical men and medical students, and in particular the establishment and conducting of a comprehensive scheme, which, as proclamations may be issued from time to time, will absorb in the Defence Force all qualified medical practitioners who have not joined the Australian Army Medical Corps voluntarily. Each District Medical Committee may have an organization of local Medical Committees throughout its district, from which the District Committee can obtain information and advice.

14. Any medical man or medical student whom the District Medical Committee does not recommend for exemption, and who considers himself aggrieved by such decision, has the right of appeal from a local Exemption Court to a District Appeal Court, in the same manner as any other applicant for exemption.

15. Any duly qualified medical man under 45 years of age, who volunteers his services in writing to the Prinicipal Medical Officer of a Military District will be given a commission as captain in the Australian Army Medical Corps,

and he will receive at least a month's notice before being called up for duty. He will be called up only and when his services are needed, and for such duty in or out of the Commonwealth for which it is considered he is most suitable, and every effort will be made to place him in a suitable position.

16. The Principal Medical Officer of each District will compile a register, and lay before the District Medical Committee the names of the medical men in each Military District who have been granted commissions in the Australian Army Medical Corps.

17. All medical men who are affected by a proclamation calling upon persons to enlist, and who desire exemption from service, will require to make an application to the Military Registrar of the sub-district in which they reside accordingly, and the War Service Regulations provide that such applications will be referred to a District Medical Committee for inquiry and a recommendation to a local Exemption Court.

18. The District Medical Committee will compile a register from detailed information supplied by local Medical Committees indicating what medical men are available in each area who have not applied for a commission in the Australian Army Medical Corps, and what are their special qualifications. It will be found convenient for these purposes to consider the medical profession in three categories—

A. Doctors under 45 years who have been granted commissions in the Army Medical Corps.

B. Doctors under 45 years who have not applied for commissions in the Army Medical Corps.

C. Doctors over 45 years of age.

19. In any proclamation issued under section 60 of the Defence Act, every male medical practitioner, single or married, is in the same position as other citizens as regards the compulsory provisions of the Act; but if he has a commission in the Australian Army Medical Corps he will, by virtue of arrangements made, not be called up by the military authority; that is to say, the Department refrains from applying to him the compulsory powers as to combatant service if and so long as he holds a commission in the Australian Army Medical Corps.

20. It is, therefore, important that every medical man under 45 should at once apply for a commission in the Australian Army Medical Corps. Such as do will be given the rank of captain.

21. A medical man with a commission in the Australian Army Medical Corps has no personal concern with any local Exemption Court, nor any local Exemption Court with him. He is not called up by the military authority for ordinary service, and if any such Australian Army Medical Corps officer does receive a notice from the military authority calling him up for combatant service, he should refer it to the Principal Medical Officer of his District, who will arrange with the military authority of the sub-district concerned for the cancellation of the notice, and the practitioner will remain in reserve until called up for duty in the Australian Army Medical Corps.

22. Being thus held in reserve, the medical man will remember that, as explained earlier, the decision as to whether and when he is to be taken from civil practice to serve as medical officer of the Australian Army Medical Corps has been delegated to the Principal Medical Officer. Thus, every medical man granted a commission in the Australian Army Medical Corps will remain in reserve unless and until it is proposed to call him up for duty.

23. If a proclamation is issued under Section 60 of the Defence Act, a medical man under 45, who does not hold or does not apply for a commission, does not have any of the advantages explained above, and he is liable at any time that a proclamation may be issued to be called up by a Recruiting Officer for combatant service under the compulsory provisions of the Act. If a proclamation is so issued, and if he does not undertake service with the Australian Army Medical Corps, unless recommended for exemption by the District Medical Committee, he will be required to undertake combatant service. If, on thus being called up, he desires exemption from ordinary service, he must lodge an application with the Military Registrar of his sub-district for exemption. His claim will (unless it is on the ground of conscientious objection) be sent on by the Military Registrar to the Principal Medical Officer for consideration by the District Medical Committee. This Committee will determine whether it is, or is not, in the national interests that he should be allowed to continue his civil practice or be allotted for military duty temporarily or permanently.

24. If it is decided that he should remain in civil practice, whether for a time or indefinitely, the Committee will recommend exemption for such period and subject to such conditions as they deem suitable, and the local Exemption Courts will issue to the medical man a certificate of exemption accordingly.

25. If, on the other hand, it is decided that it is not in the national interests that he should remain in his civil practice, the Committee will so recommend, and the local Exemption Court will decide accordingly. He will then be called up for enlistment and service in the ranks for ordinary military duty under the compulsory provisions of the Act, and the Department may, or may then, offer him a commission in the Australian Army Medical Corps.

26. Those who, on the Committee's recommendation, obtain temporary exemption will similarly be called up by the medical authority for military duty at the expiration of the period fixed, unless on the application of the medical man the Court extends the period of exemption.

Doctors over 45.

27. The Government earnestly hopes that all medical men between the ages of 45 and 60, who have not yet applied for a commission in the Australian Army Medical Corps, will voluntarily do so, and thus place themselves on the list of possible candidates for commissions. Doubtless, just as in the case of those under 45, many of them cannot be spared from their civilian practice, or are so placed financially or otherwise that the Committee would decide that they ought not to be taken at all or not until very late. Possibly a large proportion of them may not be required, but on the other hand the addition of all medical men between 45 and 60 to the number of those under 45 (now that so many of the much younger men have already joined the Army) would mean a large addition to the field of selection, and thus obviously tend to diminish very greatly the difficulties arising, both for their professional brethren under 45, for the needs of the civil population, and for the requirements of the Naval and Military Forces.

R. H. FETHERSTON,
Surgeon-General,
Director-General, Australian Army Medical Service.
Head-Quarters, Australian Military Forces,
Melbourne, 2nd October, 1916.

Hospitals.

ROYAL NORTH SHORE HOSPITAL.

The Directors of the Royal North Shore Hospital, of Sydney, in addressing benefactors, members and friends of the institution in their annual report for the year 1915, call attention to the rapid increase in the amount of work conducted in the hospital. A request had been received from the Minister of Public Health that a night clinic for the treatment of venereal disease in both males and females should be established in the hospital. On the recommendation of the Honorary Medical Staff the Board informed the Minister that they would be pleased to establish such a department if adequate accommodation were provided. The Board and the Honorary Medical Staff were keenly in sympathy with the campaign on behalf of the sick poor who were unable to pay for medical treatment. They held, however, that it would be wrong to undertake the treatment of persons suffering from venereal disease unless separate accommodation were provided.

The changes in the Honorary Medical Staff include the appointment of Dr. F. M. Blackwood as Honorary Physician, and of Dr. F. S. Brierley as Honorary Assistant Physician. Dr. E. M. Humphrey was appointed Honorary Anæsthetist, in the place of Dr. S. V. Appleyard. Some difficulty was experienced during the year in securing the services of resident medical officers.

Five sisters, seven qualified nurses and eleven partly qualified nurses left the service of the hospital during the

year. Their places were filled. The Senior Sister and another Sister were accepted for active service at the front. The Board call attention to the need for additional accommodation for the nurses. The members of the nursing staff number 37. It appears that the nurses are housed in unsatisfactory apartments, and that there is a lack of comfort for the nurses when off duty.

The department for the treatment of infective diseases was built twelve years ago. It is usually overcrowded, in view of the fact that the accommodation originally provided was for eight patients and double this number is often admitted. The building is stated to be inadequate for its purpose, and should be rebuilt on modern lines. A deputation from the Board, including many prominent residents of the northern suburbs, waited on the Minister of Public Health for the purpose of asking him to provide further accommodation at the hospital. After enquiry had been instituted the Board was informed that the sum of £5,000 had been placed on the estimates for additional building. This amount has since been temporarily withdrawn on account of lack of funds.

The income for the year has been insufficient to cover the expenditure. Starting with a balance of close on £360 (of which £124 was transferred to the Equipment and Special Purposes Trust Fund) it was necessary to add an overdraft of nearly £300 to meet the obligations. The subscriptions, proceeds of entertainments and donations amounted to £2,929 and the patients' contributions to £1,348. The Government subsidy totalled just under £2,128, which is 26.28% of the total expenditure. The average cost of maintenance per patient was £79 1s. 4d., and the average stay in hospital was 21.9 days.

The number of patients admitted during the year was 1,416. In addition, there were 92 still under treatment on January 1, 1915. On December 31, 1915, 88 patients were still under treatment. Ninety-two patients died. The total mortality works out at 6.5%. Appended to the report is a table of diseases and pathological conditions under treatment during the year and the results of treatment.

The work of the anti-tuberculosis dispensary is summarized in a special report. The number of patients registered during the year was 100. Of these, 7 are said to be cured, 26 relieved, 6 unrelieved, 32 referred to sanatoria, 27 still under treatment and 2 died. Unfortunately, the stages of the disease, the duration of the same, the result of bacteriological examination and several other matters of importance in judging the effect of treatment are not given.

Special tables are included dealing with the occupations, the nationalities and the religions of the patients admitted during the year and the localities from which they were received. Of the 1,416 patients, 367 were engaged in domestic duties, 164 were infants, 90 were labourers, 86 were school-boys, 71 were school-girls, 44 were in domestic service, 37 were old-age pensioners, 34 were carters, 26 were soldiers, 26 were clerks, 23 were nurses, 22 were carpenters, 17 were gardeners, 16 were invalids, 13 were laundresses, 11 were shop assistants, 10 were caretakers, 10 were lady helps, and small numbers were engaged in sundry occupations. Although there are no ministers in the list, 6 persons are described as of "independent means," 5 were civil servants, 3 were estate agents, 5 were orchardists, 3 were draftsmen, 3 were builders, 1 was a department manager, 1 was an electrician and 1 was a bank inspector.

THE ROYAL ALEXANDRA HOSPITAL FOR CHILDREN.

The annual report of the Directors of the Royal Alexandra Hospital for Children for the year 1915 was submitted to the meeting of benefactors and subscribers on April 5, 1915. The report, with various appendices, has now been issued, and the little book is rendered extremely attractive by the inclusion of a number of charming photographs of little patients. The year under review has been a particularly busy one at the Hospital, and the Directors congratulate themselves on the success of the work undertaken. They point out that the Hospital is intended, and is used for the treatment of children whose parents cannot afford to pay private fees. No order or admission form is required. In spite of the large claims of the patriotic funds on the public purse, the subscriptions and donations to the hospital were £900 more than the sum collected in the previous year. The ordinary expenditure amounted to £18,500. The public contributions came to £8,673, the patients contributed £1,638, and a further £1,558 was derived from interest, rents, etc. The total income from sources other than the Government amounted to £11,868. The Government contribution was £8,013. A debit balance at the beginning of the year of £2,664 was reduced to just under £1,500.

Dr. E. H. Binney has resigned his office as Honorary Surgeon after 17 years' service. He has been appointed Honorary Consulting Surgeon. Drs. Herschel Harris, Campbell, Stephen, Whiteman, Weihen, Vicars and Rutledge were granted leave of absence during the past year, to take up military duty. Dr. Donald McMaster, Dr. Margaret Harper, Dr. Shedden Davis, Dr. H. G. Humphries and Dr. Pridham were appointed to fill the vacancies thus created.

The Honorary Medical Staff advised last year that infants suffering from gastro-enteritis should not be admitted to the Hospital, but, save in exceptional conditions, should be treated in their own homes. This advice has been acted upon. In 1912 325 infants were treated in the Hospital, and 142 died. This represents a case mortality of 44%. In 1915 180 infants were treated in the Hospital, and 57 died. These cases were of a very severe type. The case mortality works out at 31.6%. In addition, 135 infants were treated at their own homes. There were 9 deaths, which is equal to a case mortality of 6.6%. It is proposed in future to extend this system by providing assistance to indigent mothers, to enable them to nurse their babies at home.

The work carried out in the Massage Department has been arduous and apparently of great value to the little sufferers. In the Diphtheria Department 613 patients were under treatment during the year (the statistical records appended to the report include only 403 cases of diphtheria, 14 of which were still under treatment at the end of the year. The case mortality, according to the table, is 12.6%). From the report itself it appears that 89% of the diphtheria patients were discharged cured. It is stated that the worst cases are kept at the Hospital, while the less serious ones are sent on to the Coast Hospital. The bill for antitoxin came to £426.

During the year, 2,953 children were under treatment. In the previous year there were 2,497. The total mortality was 10.5%. It is stated in the report that this figure compares favourably with the figure of 10.2% for the preceding year. There is probably some misprint. A severe epidemic of measles necessitated the closure of one of the surgical wards. There were 83 cases and 17 deaths Attention is called to the large number of cases of intussusception. The total number was 52, and 42 of the patients recovered.

The booklet contains, among other information, a statistical return, a classification of the diseases treated, with information as to the result of treatment, a list of operations performed and the number of radiographic examinations carried out.

SCHEME OF PENSIONS FOR NURSES IN GREAT BRITAIN.

An Army Order was published at the beginning of May, making better provision for members of Queen Alexandra's Imperial Military Nursing Service in the event of their being disabled during the present war. The following annual rates are fixed according to the degree of impairment of earning capacity:—

	Matron-in-Chief.	Matron.	Staff Nurse or Sister.
Earning capacity totally destroyed	£60	£50	£40
Seriously affected	50	40	30
Impaired	40	30	20

In cases of slight impairment, a gratuity not exceeding a year's pay may be granted on retirement, calculated according to the extent and duration of the impairment. A totally disabled member, who has sufficient service for pension, may be granted, in addition to that pension, if such treatment would be more favourable to her than the minimum rates, the following annual sums: Staff nurse or sister, £15; matron, £20; matron-in-chief, £25.

If a member has to retire on account of disability, not caused by military service, but aggravated by it, she may

be awarded such reduced rate of pension or gratuity as the Army Council may determine, in view of the additional degree of incapacity caused by her military service. In cases where the disability is contracted in military service, but not caused by it or aggravated by it, the Army Council may, at their discretion, award a gratuity not exceeding three months' pay, if it appears to them that earning power has been sufficiently impaired to justify a grant.

The benefits of these provisions are extended to members of the Army Nursing Service Reserve and the Territorial Force Nursing Service.

Special Correspondence.

(By Our Special Correspondent.)

CANADA LETTER.

The Ontario Medical Association Meeting.

The thirty-sixth annual meeting of the Ontario Medical Association took place at Toronto on May 31, June 1 and 2, 1916, and proved in every way most successful, the attendance being unusually good, particularly in view of present conditions. An able address was delivered by the President, Dr. H. B. Anderson, of Toronto. Referring first to the tremendous struggle for freedom and justice in which the British Empire and her allies are now engaged against a military despotism, which, in the guise of *Kultur*, is seeking world-power with the ethics and by the methods of barbarism, the burdens that had fallen upon the medical profession, both at home and at the front, the duty of making proper provision for the injured soldier, and the splendid spirit of the members of the Canadian Army Medical Corps who, in courage, endurance and valour, had proved themselves worthy of the men of the battalions who were their comrades, Dr. Anderson went on to the important question of drugs and patent medicines. Recognizing the value to medicine of the scientific output of German laboratories, he showed the necessity for more discriminating judgement and a less complacent acceptance of the literature of German commercial houses, the danger of permitting a dual system of medical ethics under which State-controlled professors in German clinics may advertise in text-books and trade literature patented or trade-marked preparations in a manner contrary to our code, and the desirability of considering more sympathetically the rights, interests and scientific possibilities of our own people. He thought the medical profession should learn to place dependence upon the preparations in our national pharmacopœias rather than in the commercially biassed catalogues of drug houses. The national importance of a thoroughly-trained medical profession had been demonstrated during the war, and, by protecting our soldiers against disease, scientific medicine had saved tens of thousands of lives and trebled military efficiency.

Professor A. D. Blackader, acting Dean of the Faculty of Medicine, McGill University, stated that the formulæ of all preparations prescribed should be known by the physician, and that the use of patented names upon prescriptions should be avoided. Preference should be given to Canadian or British-made drugs. In discussing this paper, Dr. Rudolf, of Toronto, suggested that, after the war, a heavy tax should be imposed upon all German drugs. A notification from the Dominion Government was then read concerning the proposed revision of the Bill for the sale of patent medicines, and a committee was appointed to make representations to the Government in respect to this.

The Address in Medicine was delivered by Dr. Elliott P. Joslin, of Boston, on the "Treatment of Diabetes Mellitus." He spoke of the importance of early treatment, and said that, if the urine were kept free from sugar, coma would rarely develope. The preliminary treatment was to exclude fat, the carbohydrates and proteins also being decreased, but it was dangerous to cut down the proteins beyond a certain percentage. After a certain amount of starvation, the diet could be slowly raised again without necessarily causing a reappearance or increase of sugar in the urine.

The Address in Surgery was given by Professor DeWit Lewis, of Chicago, who chose as his subject "Cystic Mastitis." Dr. J. F. Percy, of Galesbury, Illinois, gave the Address in Gynæcology, on the "Problem of Heat as a Method of Treatment in Cases of Inoperable Uterine Carcinoma." The special apparatus employed was described, and cases quoted to show that improvement had resulted from the application of varying degrees of heat.

A paper on "Tonsillectomy, with its General Results," was read by Dr. Justus Matthews, of the Mayo Clinic, of Rochester, Minnesota, U.S.A. The operation was usually performed under local anæsthesia, and in a series of several thousand cases practically no bleeding had occurred as a complication. "The Treatment of Pneumonia" was the title of a paper by Professor Solomon Solis Cohen, of Philadelphia. Dr. Cohen prefaced his remarks by a reference to the "righteous struggle against aggression," and said that the hearts of all the good people in the United States were with Great Britain and her Allies. He advocated the use of quinine in conjunction with inhalations, fresh air, and good nursing, in the treatment of pneumonia.

An interesting feature of the Conference was the Military Session, which took place under the patronage of His Honour the Lieutenant-Governor of Ontario. Papers on "Neurosis in Returned Soldiers," "Cerebro-spinal Meningitis among Soldiers," and "Effects of Poisonous Gases as shown in Returned Soldiers" were read. It was stated that it had now been proved that the Germans had been experimenting for years on the effects of poisonous gases on animals, with a view to using the most harmful of them in warfare. The "Problems and Plans of the Military Hospitals' Commission in Dealing with Invalided Soldiers" were discussed by Senator J. S. McLennan, a member of the Commission, and the "Economic Problem Presented by the Treatment and Disposition of Returned Soldiers" was considered by Professor S. B. Leacock, of the Chair of Political Economy in McGill University. Professor Leacock thought that the most serious problem was the provision of employment for the men of the disbanded armies when the war ceased. Since it had been said that every man must fight, work or bread must be provided for every man. War was destructive, and could only result in poverty proportionate to the destruction and therefore the greatest poverty the world had ever known.

The conference closed with a vote of thanks to Dr. H. B. Anderson, of Toronto, the retiring President, to whom a great measure of the success of the meeting had been due. Dr. A. Dalton Smith, of Mitchell, Ontario, is the President for the year 1916-17.

The College of Physicians and Surgeons of Ontario.

The annual meeting of the Council of the College of Physicians and Surgeons of Ontario took place at Toronto on June 27 to 30, 1916. The Ontario Temperance Act provides that physicians and druggists shall keep a certain quantity of alcoholic liquor, which they shall dispense for medicinal purposes. In this connexion it was resolved "that, inasmuch as the Government has imposed upon the medical profession the working out of the Ontario Temperance Act, the Council desires to impress upon the profession at large the necessity of adhering to the Act with dignity and decorum." The report of the Licensed Midwives' Committee was adopted, the conclusion having been reached that, at the present time, conditions in the province did not demand a system of licensed midwives. It was resolved that a request be forwarded to the Militia Council, asking that rank and compensation more in keeping with the services rendered be accorded officers of the Canadian Army Medical Corps.

The report of the Education Committee was adopted. It provides, *inter alia*, that the question of uniform matriculation standards be taken up when the Canada Medical Council has issued its report on the same; that the fifth year of the medical course shall be wholly and exclusively academic; that graduates in medicine of such foreign universities as shall enjoy recognition under the College of Physicians and Surgeons will not be required hereafter to attend a full winter session of lectures and clinics in a Canadian medical college before offering themselves for the College examinations; that the present summer sessions at Queen's University, Kingston, and the University of Toronto be regarded as a full academic year, the College to hold its

usual autumn examination early in December to accommodate candidates completing their studies at that time. A committee was appointed to act in conjunction with similar committees appointed by the Ontario Medical Association and the Toronto Academy of Medicine to take up the question of Workmen's Compensation with the Provincial Government, with a view to having the Act amended so that some provision shall be made for the payment of the fees of physicians and surgeons who are called in in cases of accident.

The Medical Council of Canada.

The fourth annual session of the Medical Council of Canada took place at Ottawa on June 6 and 7, 1916, under the presidency of Dr. R. J. Gibson, of Sault Ste. Marie, Ontario. Among the most important matters that came up for consideration was the question of reciprocity between the Medical Council of Canada and the General Medical Council of Great Britain. This cannot be arranged until each of the provinces of the Dominion has reciprocity with Great Britain, and, up to the present, such an agreement has not been entered into by the province of Alberta. All the other provinces have concluded reciprocity with the General Medical Council. Another matter of particular interest was the question whether members of the Canadian Army Medical Corps could return to Canada at the end of a year's service. This matter was brought to the attention of the Minister of Militia by the Executive Committee, who were informed that if individual application were made the privilege of returning to Canada at the end of the period stated would be granted. The Executive Committee were also informed that graduates of American medical colleges would be given medical commissions in the American Legion (which consists of Americans who have enlisted for active service with the Canadian Expeditionary Force) or similar units on the same footing as Canadian graduates, provided they were fully qualified and of good standing.

Notice was given by Dr. J. C. Connell, Dean of the Medical Faculty of Queen's University, Kingston, that at the next meeting of Council he would propose a resolution to the effect that a scholarship should be established, to be awarded to the candidate receiving the highest total marks in each of the examinations of the Council, the amount of the scholarship to be sufficient to permit the holder to spend at least a year in professional studies abroad, the direction of these studies to be under a committee of the Council.

Notice was given also by Dr. R. E. Walker that he would move that a special committee be appointed by the Council to inspect and report upon the medical schools and universities actively engaged in the teaching of medicine in Canada.

The Canadian Red Cross Society.

The eighth annual report of the proceedings of the Canadian Red Cross Society is an unusually interesting one, containing, as it does, a record of the work accomplished from the commencement of the war up to the end of 1915. An impetus has been given to the work in Canada by the war, as is evidenced by the fact that, during the year 1915, 300 branches were established in different parts of the Dominion, making the total number of branches 484. In addition, a large number of auxiliary societies have been founded. It has been found necessary to publish a monthly bulletin of information and instruction, and to distribute a large number of pamphlets containing suggestions for work. Material assistance has also been given to the Military Convalescent Hospitals that have been established throughout the country.

In England, large hospitals have been established and are maintained by the Society, and assistance and supplies have been given to a number of other hospitals and institutions. The Duchess of Connaught Canadian Red Cross Hospital has been established at Cliveden, and has accommodation for nine hundred patients. His Majesty graciously presented the Royal residence at Bushey Park to the Society, and it is now the King's Canadian Red Cross Hospital, with accommodation for three hundred patients. The Peak Hydro, at Buxton, Derbyshire, was taken over by the Society and converted into the Canadian Medical Services Special Hospital for Rheumatism, and the Daughters of the Empire Canadian Red Cross Hospital for wounded and invalided officers of the Canadian Expeditionary Force has been opened at Hyde Park Place, London. The equipment for this latter hospital was provided by Colonel and Mrs. Gooderham, of Toronto, and its maintenance has been undertaken by the Canadian Militia Department.

In France, assistance has been given by the Society to a number of hospitals, and supply depôts have been established with each of the Canadian Base Hospitals. Supply headquarters are at Boulogne.

The Society was able to place at the disposition of the Canadian Army Medical Corps from November, 1914, to the end of 1915 fifty-six ambulances. During the year, seventy-eight Red Cross nurses were sent to England, and were assigned to duty at various hospitals, a number of them being sent by the War Office to the Mediterranean.

Splendid work has been accomplished by the Information Bureau established at the Canadian Red Cross Headquarters at London. The bureau is under the direction of Lady Drummond, of Montreal, who, with the assistance of a number of voluntary helpers, collects information as to the whereabouts, condition, and progress of wounded and invalided members of the Canadian Expeditionary Force. A Bureau in Canada has been established at the University of Toronto by Mr. Hugh Langton, the Librarian of the University. The Prisoners of War Department, which is under the direction of Mrs. Rivers Bulkley, is an outgrowth of the Information Department, and is also established at the London headquarters of the Canadian Red Cross Society.

The Society is fortunate in having as its president Her Royal Highness the Duchess of Connaught, who has taken the keenest interest in its work since the commencement of the war.

Correspondence.

OBSTETRIC PRACTICE.

Sir,—In the *Journal* for September 16th of this year there are three papers on certain points in obstetric practice which, with the discussion that follows, are most useful and progressive. I venture to believe that every medical practitioner will find some mental stimulus when he carefully sets himself to consider the questions there put before him.

Dr. Hipsley invites criticism; but as he can show such excellent results one can only heartily congratulate him and add a few suggestions gathered from personal experience. For instance, I am now finding it more and more necessary to give considerable care to the maternal health some four or five months before the expected date of delivery. Having made sure of the pelvic measurements, I examine the urine every fortnight, greater attention being given to the quantity, the reaction, the specific gravity and the presence of Fehling-reducing material, rather than to searching for minute amounts of albumin. I frequently insist upon taking one specimen by sterile catheter, and, after eliminating renal casts, I obtain expert opinion as to the presence of pathogenic organisms, and on three occasions lately I was thankful to have an autogenous vaccine ready for use. Also I have recently found chronic appendicitis four times during gestations, and on three occasions had to remove a suppurating appendix during the puerperium. I regard pituitary extract, as does Dr. Hipsley, as having marked limitations in obstetric work, though exceedingly useful when rightly employed, as during the third stage, to secure uterine contractions when needed to expel a free placenta and to make sure against *post partum* hæmorrhage. I have seen alarming symptoms of syncope follow a second dose of pituitrin given within two hours of the first. On this point Dr. Embley, Lecturer on Anæsthetics in the Melbourne University, authorizes me to say that he "has found experimentally on a few occasions vasomotor dilation after a second or third dose given intravenously, the expected rise of pressure being completely replaced by a fall. This apparently vicarious action it is impossible at present to explain. It may be due (1) to inconstancy in the purity of the extract, (2) or to abnormality in the animal, or (3) it may be normal pharmacological action of the pituitary gland in relative excess."

I would strongly caution against the use of a second dose of pituitary extract within four hours of the first

hypodermic injection. Clinically I have found that the first pressor action is followed by a depressor action if a second dose be given too soon, and this knowledge, some three years ago, was used just in time to save the life of a woman who had uterine inertia and to whom one dose of infundubulin had been ineffectual, but manual compression of the abdominal aorta and of the uterus itself relieved the situation. When any form of operative assistance has to be given I prefer anæsthesia by open ether to the use of chloroform.

Of this I am sure, that the conditions are rare indeed when it can be safely employed instead of clean forceps. In dystocia in an elderly primipara, due to a rigid os, firm vaginal tamponade against the cervix with glycerine and icthyol (10%) during the whole of the first stage will soften the os and assist dilatation. Moderate chloroform anæsthesia during the expulsive stage relieves much mental strain, and a submucous episiotomy, assisted by timely and patient use of the forceps, will avoid severe lacerations of the perineum, which are apt to become infected, to distress and even endanger the patient. I have four times performed "deliberate" Cæsarean section, and six times performed hebotomy securing four living children by each treatment and twice symphyseotomy with satisfactory results to mother and child. But I now decline to perform Cæsarean section if attempts to deliver have been made before my visit.

Then I consider hebotomy or hebosteotomy as much the safer procedure, assuming that the fœtal head can be grasped by axis-traction forceps when the patient is in Walcher's position. On the other hand, I have six times induced labour at the beginning of the eighth month in the pre-eclamptic stages and in flat, non-rachitic pelves; all these justified the treatment by the satisfactory results to mother and child.

I find that the systematic use of the Tycos hæmodynometer during pregnancy most valuable, and there are *post partum* conditions, where it throws much illumination on an otherwise darkened road.

I am entirely in accord with Dr. Windeyer in preferring to use smooth rubber gloves rather than rough; two pairs should be ready in reserve; both may be required. It is always wise to remain in the house, or very close at hand, for at least two hours after child-birth, and never for any reason should a woman be left alone for one minute during the six hours subsequent to a severe or anxious labour, especially where there has been some uterine inertia. A glance at the stump of the child's umbilical cord may save later regrets.

During the puerperium I advise the patient to turn frequently in the bed from side to side, and to spend at least an hour morning and evening in the prone position. I generally raise the head of the bed 16 inches on the first day after delivery, and the patient is encouraged to massage her own limbs and abdomen; but does not leave her bed until after the eleventh day of the puerperium, and then uses a couch for a week.

After reading the paper by Dr. Fourness Barrington on the prophylactic induction of labour in normal pelves, one wishes that something similar had been laid down twenty years ago. I venture to believe that, were it possible to follow his direction always, or rather could one act always with the authority he possesses, many infants' lives would have been saved and less damage done to the maternal parts. We may find it difficult to induce a primiparous woman of thirty years whose gestation has progressed some seven days after the normal limit to have labour induced. I, however, believe that it were safer so to induce labour under careful asepsis than to wait an indefinite period on the chance of being able to extract a living post-mature child with more or less traumatism to child and mother. Such has been my experience thrice within two years; but I found it very hard to overcome old-fashioned prejudices.

Yours, etc.,

W. DUNBAR HOOPER.

2 Collins Street, Meblourne.
(Undated.)

ORTHOGRAPHY AND ORTHOLOGY.

Sir,—(1) Pardon my drawing your personal attention to a matter of spelling. In your *Journal* of to-day's date, page 264, the word "judgment" is thrice represented by "judgement." I may be wrong, but I am of opinion that the central "e" in this word is an error, and I take the trouble to mention it lest the elongiasis should become chronic, as is the case with the *British Medical Journal* (*vide*, unfortunately, any issue, or, for example, *B.M.J.*, June 3, 1916, Supplement, pp. 127, 128). The *British Medical Journal* seems incurable.

(2) Another slight error, to which attention should be given, is the following: Your *Journal* is repeatedly assigning to medical men degrees which they cannot possess. I refer to "M.S., Univ. Sydney." This mistake occurs in the fourth and fifth lines on page 266 of to-day's *Journal*, twice (I believe) on p. 158 of August 26, 1916 (Dr. Donald I. Smith), again (I believe) on p. 175 of September 2, 1916 (Dr. H. S. Stacy, if, as I believe, his surgical degree is that of the University of Sydney), and, in fact, very commonly in your *Journal*, in various positions. I have the expressed opinion of the Registrar of the University of Sydney behind me when I state that the "Master of Surgery" degree of that University is to be represented by the letters "Ch.M.," and not by letters which may indicate a similar degree of any other University or body. The point should be rigorously observed for a number of reasons. If the New South Wales Medical Board makes the same error, it is none the less an error, as there is no such degree as "M.S. (Univ. Syd.)". The Registrar of the University will bear me out in this. Personally, I should very much like to see you correct on this and kindred matters, as otherwise your *Journal* may be the cause of an unfortunate confusion; and I think that all Sydney graduates will share my keenness.

Thanking you in anticipation, and again apologising for the trifles,

Yours, etc.,

G. ATKIN SAMPSON, M.B., Ch.M. (Sydney).

Maleny, Queensland,
September 23, 1916.

[No apology is needed. Free discussion conduces to accuracy. In the matter of spelling this *Journal* follows the *Rules of the Oxford Press* and the *New English Dictionary*, edited by the late Sir James A. H. Murray. In reference to the word under consideration, it appears as "judgement (less correctly judgment; this spelling has been in use only since the 18th century, but there is no reason for it)."

The qualifications of medical men are copied from the Government *Gazettes*, in which the degrees registered by them are printed. The degree of Master of Surgery of the University of Sydney should be written Ch.M. This degree is similar to the Bachelor's degree in Surgery in many universities, and does not rank as a higher degree. The *Journal* cannot accept the responsibility of altering any degrees registered and published by the Australian Medical Boards.]

Proceedings of the Australasian Medical Boards.

VICTORIA.

The following have been registered under the provisions of the "Medical Act, 1915," as duly qualified medical practitioners:—

Brown, Arthur Edward, M.R.C.S., Eng., L.R.C.P., Lond., 1913.
Browne, David Dorey, M.B. et Ch.B., Melb., 1916.
Crisp, Ralph Harry, M.B. et Ch.B., Melb., 1916.
Davies, George Vernon, M.B. et Ch.B., Melb., 1916.
Disher, Harold Clive, M.B. et Ch.B., Melb., 1916.
Fox, Alfred Raymond, M.B. et Ch.B., Melb., 1916.
Hickey, Glenloth Victor, M.B. et Ch.B., Melb., 1916.
Hyett, Harold Rupert, M.B. et Ch.B., Melb., 1916.
Jelbart, Charles Ellis, M.B. et Ch.B., Melb., 1916.
Joske, Esmond Shirley, M.B. et Ch.B., Melb., 1916.
Lawrence, Arthur Poole, M.B. et Ch.B., Melb., 1916.
Littlejohn, Euan Ironside, M.B. et Ch.B., Melb., 1916.
Lording, Howard Woodruff, M.B. et Ch.B., Melb., 1916.
Norris, Frank Kingsley, M.B. et Ch.B., Melb., 1916.
Robertson, Gordon Ochiltree, M.B. et Ch.B., Melb., 1916.
Sewell, Philip Beauchamp, M.B. et Ch.B., Melb., 1916.
Stewart, Mervyn Athol, M.B. et Ch.B., Melb., 1916.

Additional qualifications registered:—
Sweet, Elizabeth Mary, M.D., Melb., 1916.
Stewart, Cedric Alwyne, M.D., Melb., 1916.

SOUTH AUSTRALIA.

The following have been registered under the provisions of the "Medical Act, 1880," as duly qualified medical practitioners:—

Aspinall, John, M.R.C.S., England, 1885; and L.S.A., London, 1884.
MacCarthy, Charles Denis, L. & L.M.R.C.S., Ireland, 1888; L. & L.M.K. & Q.C.P., Ireland, 1888.

Medical Appointments.

Dr. A. E. J. Scott has been appointed on probation for twelve months to the Permanent Staff of the Lunacy Department, New South Wales.

Dr. T. J. M. Kennedy has been appointed acting Officer of Health for the Shire of Corio, Victoria.

Dr. J. A. O'Brien, Government Medical Officer in the Chief Secretary's Department, has been appointed to examine for the Commonwealth Government claimants for invalid pension, etc.

The following have been appointed medical officers to attend to destitute persons and aborigines in seventeen districts of South Australia: Drs. T. Auricht, P. T. S. Cherry, R. McM. Glynn, A. Goode, F. J. E. Juttner, A. P. Evelyn O'Leary, C. E. Player, R. G. Plummer, O. W. Smith, and J. R. Tobin.

Medical Appointments Vacant, etc.

*For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xxi.

Ballara District Hospital, Medical Officer.
University of Melbourne, Lectureship in Histology and Human Embryology.
Royal Australian Naval Medical Service, Temporary Surgeons.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	Brunswick Medical Institute. Bendigo Medical Institute. Prahran United F.S. Dispensary. Australian Prudential Association Proprietary, Limited. National Provident Association. Life Insurance Company of Australia, Limited. Mutual National Provident Club.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	The F.S. Medical Assoc., Incorp., Adelaide.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Brisbane United F.S. Institute.
WESTERN AUSTRALIA. (Hon. Sec., 230 St. George's Terrace, Perth.)	Swan District Medical Officer. All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Department of Public Instruction—New Appointments as Medical Officer, Ophthalmic Surgeon, Ear, Nose and Throat Surgeon, Physician. Australian Natives' Association. Balmain United F.S. Dispensary. Canterbury United F.S. Dispensary. Leichhardt and Petersham Dispensary. M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney. Marrickville United F.S. Dispensary. N.S.W. Ambulance Association and Transport Brigade. North Sydney United F.S. People's Prudential Benefit Society. Phœnix Mutual Provident Society. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Orange. F.S. Lodges at Parramatta, Penrith, Auburn, and Lidcombe. Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	F.S. Lodges, Wellington, N.Z.

Diary for the Month.

Oct. 7.—N.S.W. Branch, B.M.A., Annual Meeting of Delegates of Local Associations with Council (Second Day).
Oct. 10.—N.S.W. Branch, B.M.A., Ethics Committee.
Oct. 10.—Tas. Branch, B.M.A., Council and Branch.
Oct. 12.—Vic. Branch, B.M.A., Council.
Oct. 13.—S. Aust. Branch, B.M.A., Council.
Oct. 13.—N.S.W. Branch, B.M.A., Clinical.
Oct. 17.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Oct. 18.—W. Aust. Branch, B.M.A., General.
Oct. 20.—Q. Branch, B.M.A., Council.
Oct. 20.—Eastern Suburbs Med. Assoc. (N.S.W.).
Oct. 20.—N.S.W. Branch, B.M.A., Branch (Adjourned from September 15).
Oct. 21.—Northern Suburbs Med. Assoc. (N.S.W.).
Oct. 25.—Vic. Branch, B.M.A., Council.
Oct. 26.—South Aust. Branch, B.M.A., Branch.
Oct. 27.—N.S.W. Branch, B.M.A., Branch (Ordinary).
Oct. 31.—N.S.W. Branch, B.M.A., Medical Politics Committee, Organization and Science Committee.
Nov. 1.—Vic. Branch, B.M.A., Branch.
Nov. 3.—Q. Branch, B.M.A., Branch.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.